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Issue 314

Sept—Nov. 2023

www.TDARS.org.uk

Programme

www.telfordhamfest.co.uk

September 20 'The NanoVNA' - by John M0XJA explains all. LWVH + Webex online

September 27 'The Rig Expert Antenna Analyser' - by Paul M0PLA (+Webex)

October 4 Committee Meeting (Webex) + 2 metre ragchew (8pm, 144.6MHz-FM)

October 11 John G4IRN 'World Radiosport Team Championships'(+ Webex)

October 18 JOTA (Scout Jamboree on-the-air) Preparation. LWVH.

October 21/22 JOTA at Wellington Scout HQ (by the railway station)

October 25 Soup & Roll Social. Bring something of interest along to share

November 1 Committee meeting 8pm (Webex), 2m chat 144,600 MHz FM 8pm

November 8 Surplus Equipment Sale. Simon G0UFE M/C. 10% to club funds.

November 15 "Battery Pack Management" (BMS) by Tony M0TZM

November 22 Winter Projects preparation evening, Ideas and outlines

November 29 "My SOTA Tour of Europe 2023" - by Paul M0PLA

December 2 (Sat.) Midland Microwave Round Table, Eaton Manor, Details G8AQA

December 6 Committee meeting 8pm (Webex). 2m chat 144.600 MHz FM 8pm

December 13 TDARS Christmas Meal at the Grazing Cow, Lawley (TBC)

December 20 Mince Pie & Mulled Wine Social. Also club equipment Showtime!

For Equipment Loans & Returns contact John M0XJA

For "RSGB Brickworks" scheme (Club or Individual) —enquiries to Graham G7LMF For Morse Training and Morse Proficiency Tests Martyn G3UKV or Eric M0KZB.

Radio Amateur Exams- Latest: Contact Graham G7LMF training@tdars.org.uk

Village Hall, Malthouse Bank, Little Wenlock, Telford, Shropshire. TF6 5BG

<u>f</u>ditorial

The Telford HamFest has come and gone for another year, our forty-fifth event. Paul M0PLA sent me an early photo of the equivalent event from the early '80s, when it was held at the original Telford Shopping Centre—before Sunday trading was allowed. Here it is—note the hair and general appearance of that generation. Some more recent (i.e. 2023) photos follow herein (Page 8).

As usual, we have discussed outcomes and possible improvements for next time, but I think we should remember that this is not a business venture out to maximise profits, although I've always stated that I shall not be involved if the



'profit' is less than £1K, given the protracted effort that goes into it by Club members over the course of about 6+ months. It's a challenging, but enjoyable occasion for radio amateurs.



I've included a few messages from visitors later in this
Newsletter, but my favourite for 2023 comes from a guy called
Paddy O'Reilly M4MAD (Yes) near Rugby, who e-mailed on the day
of the HamFest "By far my favourite Radio Day Out - a great
'flea market' where you can get lots of bits you didn't need
AND superb talks."

MIV

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Another Snippet from Mike G6DFD:-

Bravo Zero.

The code BZ was sent in morse from the Criggion Radio station to the nuclear submarine HMS Conqueror after it sank the Argentine ship the General Belgrano in the Falklands war. It's unknown why the Argentine ships radio didn't send an SOS message as the ship was hit. Some said the radio operators left their post to save themselves or the comms went down in the attack; either way it was unable to call for assistance from two other

The combination of the Bravo and Zulu nautical signal flags, i.e., Bravo Zulu, also referred to as "BZ," is a naval signal, typically conveyed by flaghoist or voice radio, meaning "Well Done" with regard to actions, operations or performance.



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CHAIRMAN Simon Bird GOUFE (telfordslivewire@hotmail.co.uk Tel: 01952 401018)

VICE-CHAIRMAN: Martyn Vincent G3UKV (ukv@ukv.me.uk Tel:01952 255416) SECRETARY: John Humphreys M0JZH (m0jzh@yahoo.co.uk Tel:07824 737716)

TREASURER: Paul Athersmith M0PLA (paul.athersmith@gmail.com Tel:07966 969230)

CURATOR: John Alexander M0XJA (acontractornow=yahoo.co.uk)

TRAINING and 'RSGB Brickworks': Graham Cowan G7LMF (training@tdars.org.uk) **NEWSLETTER EDITOR**: Martyn Vincent G3UKV (01952 255416 or 07421 001166)

PUBLICITY/WEBMASTER: Dave G0CER (davekh@gmail.com).

ships accompanying it, resulting in 223 Argentinian losses.

<u>Committee</u>: Village Hall Committee Liaison Martin 2E0TRO; QSL Manager Paul M0PNN; Trophies/Certs: Martyn G3UKV; Committee: Tony M0TZM, Mike G6DFD. Contest co-ordinator: Paul G8AQA.









Qtc: News & Information



TDARS MEETINGS EVERY WEDNESDAY EVENING HELD NORMALLY AT LITTLE WENLOCK VILLAGE HALL WITH SOME ONLINE (Webex) STREAMING OF APPROPRIATE PRESENTATIONS: PLEASE CHECK FRONT PAGE LISTING FOR SPECIFIC DETAILS.

Please note: A current membership card may be required to borrow TDARS equipment. Please return borrowed equipment promptly.

<u>VHF NFD Results</u> came out a few weeks ago. In the Mix 'n Match section. We were runners-up to Trowbridge & DARC (G2BQY/P), who had 409 more points overall than us. We were ahead on 4m and 2 metres, but they achieved better scores on 6 metres and 23cm. Still up from 3rd (2022) to 2nd this time.

On the <u>contest theme, Dave GOCER</u> achieved good results in the CQWW RTTY contest last February. He entered as G0C in the single op. low power (<100w) all band (80-10m). In just over 13hours, Dave had 239 QSOs with 186 individual prefixes and was pleased to come first G station in his section, 16th Europe and 37th in world.



Following that, Dave entered various events, resulting in his remark:- "Happy to be top UK station and 2nd in my corner of the *IOTA contest* this year as G0C" (e-mail 7 Sept.)

A slightly less glamorous outcome was the intended entry to the **RSGB 70MHz Trophy** contest (15th July), where it was hoped to use the club's new 4/6 metre dual band antenna. However, severe thunderstorms, wind and rain were forecast, and eventually the team decided to let it go. Lightning strikes on Long Mynd are not to be recommended for amateur radio operation. In the results table, only 3 stations entered as portables in the Open Section.

<u>Congratulations to Shabaz</u> for passing the Foundation A.R. exam. He now holds the callsign M7YSZ. "Super-special thanks to John Alexander for the encouragement and patiently walking me through everything I needed to do to get through it! I'm looking forward to studying further and working toward the Intermediate licence " (e-mail 5 Aug.)

The <u>Summer B-B-Q</u> in Little Wenlock Village Field took place on a dry evening in July, with a good turnout of members enjoying the food etc provided kindly by Paul M0PLA. This was followed in August by several QSOs with Paul who was "<u>SOTA-ing</u>" in Europe, and on this evening in Belgium spoke to several members in LWV Field, using ON/M0PLA/P, on 40 metres, The equipment was a Yaesu FT847, with a HF multiband wire antenna, and Paul was using QRP 5 watts.



John G7ACD, XYL, Paul, Heather 'and others organised a local <u>radio 'meet' at Eaton Manor</u> early in August. As well as

some Oscar-100 activity, they also set up an experimental Low Power 2 metre station, with a tower and antenna set up in the adjoining field. A good number of members attended. (photos: G6DFD)









Attendees comments:-

Great day at Eaton Manor, rain didn't dampen spirits as we had plenty of interesting projects to help out with and lots of coffee! *Neil G1NMG*

Glad you liked it and was able to take something away from the day.

Mr Carris will be happy you liked the location...it's a great place and we were lucky to use it.

I was particularly impressed how well a simple hand held mobile set up could be used to pick up the NOAA Weather transmissions *John M0XJA*.

As well as station Callsign Plaques (Pg 4 last Newsletter), Paul M0PLA can continue to order <u>Club Polo shirts</u> at the old price—£10.99 + VAT with the TDARS logo, or add £3.50 + VAT to add your name and callsign. A small minimum order (3+ Ed?) is required. Likewise, the black <u>Baseball Caps</u> with the TDARS logo and your callsign are £7.70 + VAT. Later in this Newsletter we have another unique item that Paul is manufacturing himself—see page 6.

CW QRP QSO by Mike Street G3JKX

At RAF Locking, in 1953, I was a 17 year old in my last of training to be an Air Radio Fitter.

I had just got my licence and was operating the apprentices club station, G3IDZ on 80m, calling CQ. CW of course. Eventually I was called by a ZB2 (Gibraltar) station, but the sound of the keying sounded really weird.

I can only describe it as being very quiet and very 'soft'.

Basically each keyed dot and dash had an excessively long rise and fall time.

The QSO went well and I was feeling really pleased with myself.

Naturally wanting to boast about it, I hurried off to the RAFARS HQ station G8FC, at the other end of the camp; about half a mile or so away.

When I arrived there was great merriment amongst the operators there and they then told me why.

On the operating desk, besides the AR88Rx and a home made Tx, was a BC221 frequency meter.

One of the ops there had heard me calling and had tuned the BC 221 to my frequency and had replied to my CQ, idly tapping his forefinger on the front panel aerial terminal. He was duly shocked that I had heard this minuscule signal being heard, with him as a very poor aerial! The guy concerned owned up and said that he never expected his old ZB2 call sign to be heard, let alone have a successful QSO. Anyway we had a good laugh about it and I'd made some good friends, who were all sergeants, flight sergeants and Warrant Officers,....all well above my lowly position as an apprentice.



It just goes to show that QRP, even with an unmatched poor aerial, really can work. You should try it! 73 Mike G3JKX

PS I believe the offender was G3IRK, whose name escapes me. I am now 87 years old after all.



Two club tents of similar design to photo (left) still available to an individual or organisation (scouts, guides, youth, school etc) for a small donation to TDARS funds. Contact Martyn G3UKV for further information.

Thanks for Newsletter input this time:

Peter G4URT, John G4IRN, John M0XJA, Paul M0PLA, Mike G6DFD, Dave G0CER, Mike G3JKX, Shabaz M7YSZ, Neil M1NMG

Next edition November / December 2023
Can YOU contribute something?— Results in a better Newsletter!

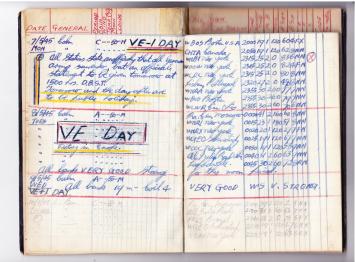
A Good Reason for keeping a Logbook?? By Peter G4URT

After producing at least a dozen articles for the TDARS magazine, I was going to make the last Newsletter contribution my last offering (apart for part 2 of 2m DXCC journey that I've promised Martyn for

next year or so). However, a couple of old hand made receiving logbooks have come into my possession parts of which are worthy of reproducing here. They belong to my father-in-law who is a very elderly G4 and who now lives in a care home. When I cleared his flat out a few years ago I thought that I had accounted for everything related to radio. However, my sister-in-law had a couple of his logbooks and I have recently taken possession of them.

During WW2 he (much to his disgust!) was a Bevan boy in his home town of Newcastle. He was living at home as the pit he was working in was nearby. However, as can be seen from the cover he was an SWL with a British Receiving Number of 9176. This was part of the RSGB.

During the war amateur radio was banned, but he spent his time listening to broadcast stations. Looking through the books it is obvious that he was diligent in noting conditions, callsigns, the coils used in the receiver, the weather and other parameters that I cannot understand.



However, there are 3 entries that are somewhat unusual and reflect the mood of the nation during 1945. That is for VE (Victory in Europe) and VJ (Victory in Japan) days.

The entry for the 7th of May 1945 reads: 'All Stations state unofficially that all German armies surrender, but an official statement to be given tomorrow at 1500 hrs DBST. Tomorrow and the day after are to be public holidays'.

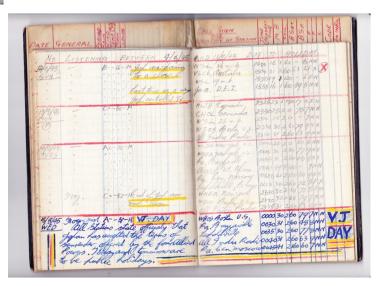
For those who don't know DBST was Double British Summer Time. And on the 8th of May he writes 'All looks VERY GOOD Strange'. Was he referring to conditions or the state of peace ?!

And so onto the war in the East...

The entry for the 15th of August 1945 reads: 'All stations state officially that Japan has accepted the terms of surrender offered by the four Allied Powers. Today and tomorrow are to be public holidays' (shown right — Ed)

The logbook goes on to report as shown (right)

'All stations are giving special programmes for VJ DAY. There was a time when the whole of the S.W. Bands were full of National Anthems and National Tunes etc.'



The last entry in this logbook from the 21st July 1946 is 'Now logging hams' and it stops. Just 2 entries as follows:



Typing this article has got me thinking. What would happen nowadays with automatic computerised logging? Makes you think. Personally I do not use any form of computerised logging whatsoever. Mainly due to the fact that I make so few contacts on 2m EME, MS or FT8 it just isn't worth the bother. So it's a good old fashioned handwritten logbook for me....

Peter G4URT

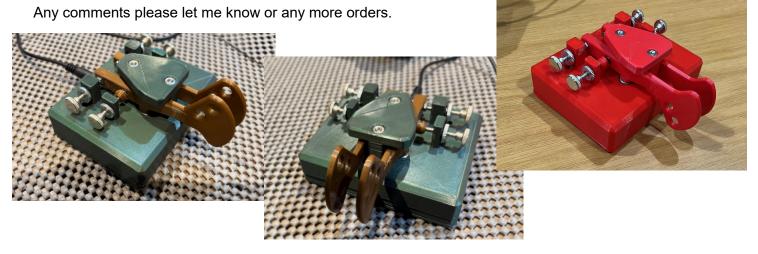
A 3D Printed morse key paddle By Paul Athersmith M0PLA

Hi everyone, just a little information about my latest 3D Printed morse key; the design is not mine but rather from a gentleman named Jose Bascon EA7HVO. From what I can make out he designed the paddle in early to mid 2020. It looks like CT1ILT sells them for €50 and ships worldwide. The 3D Printed section is broken down to 7 sections, the smallest part is a 5 minutes print to the largest (Base section) is 9 hours 45 minutes, basically about 13 hours to print all sections.

There are then a few ironmongery parts and a 3.5 mm female jack socket and a little section of wire. I am selling these as a kit for £12.00 or fully assembled for £20 so a little cheaper than the €50 online. The paddle is very nice to use and Paul M0PNN suggested at the Hamfest that it operated better than his Bencher.

If anyone would like to download and print their own the link is https://www.instructables.com/3D-Printed-Twin-Paddle-Cw-Key/

There is a link to all of the parts to purchase from Aliexpress and the total price for these would be around the £5 area plus P&P. All the different suppliers shipped me all of the parts within about 3 weeks.



A bit of radio history – By John Warburton G4WRN

We all know that Guglielmo Marconi was the first ever radio amateur; he was also the founder of (what came to be) the Marconi Company in the UK in 1897.

When I was in Bologna last week (email sent 14 July –Ed) at WRTC, I had the pleasure of visiting the family house where his initial radio experiments were carried out. It is now a museum and as part of the guided tour, a recording was played of the man himself - I was astounded that he had a plumb English accent! Quite astonishing really, but his mother was Irish and England was the 'Silicon Valley' of its day, so maybe no surprise.

As part of the WRTC closing/awards ceremony, a very unexpected and moving event occurred - the organisers had scheduled a call with Marconi's daughter, Elletra. She was born in 1930 and married a Prince; it really brought home how radio technology has progressed so fast. Her call into the ceremony can be heard from around 33 mins into the video: https://www.youtube.com/watch?v=6gveD7icJ58

As an aside, the announcement to award the next WRTC to the UK starts at 1h 06m on the same video.





Visit to Criggion Radio Station (GBY) July 19

With thanks to Robert GW6GBY, our host for the evening.

Pics: G6DFD

More Musing from Criggion by Robert GW6GBY

Mid September is on us; the mornings are getting darker, the evenings decidedly longer. Time for a winter project maybe?

I recently picked up a rather large bundle of KW radio equipment, which included a KW2000A + PSU, KW2000B + PSU, Monitor Scope, VFO and ATU/Power/VSWR meter. The reported fault on both the transceivers (which had been largely abandoned) was extreme deafness and no Tx output.







For the benefit of our younger members, I think a bit of "modern" radio history is in order. Yes, we here in the UK did manufacture "transceivers"; in fact we were one of the first.

Previous to the very first **KW Valiant and Vanguards transceivers**, you really needed to build your own transmitter (or buy very expensive largely American custom built and designed equipment), and usually pair it up with an AR88 or other similar boat-anchor receiver you picked up or acquired at your local ex war surplus store.

KW started in Jan 1956 with it's founders importing Geloso VFO's from Italy, the essential basis for a transmitter. The KW2000's go back to the early 1960's and the company finished production in the mid 1970's. A bit like the British motorcycle industry, KW were quickly pushed aside by the largely cheaper and better specified, built and designed Japanese products. As a motorcyclist in the mid 1970 with my first Honda CD175, I heard my more senior biker friends riding about on their Norton's and Triumph's talk about "rice burner" motorcycles that would never catch on. Alas the same can be levelled at our humble radio equipment

The KW2000A/B are a bit like a vintage Yaesu FT101 except they had separate PSU's, but with 20 valves, (mostly but not exclusively American tubes) not the 3 you find in the Yaesu. Mind you the PA stage has the same pair of Beam Tetrodes, 4146's in parallel (giving 100W output on a good day) as per the 101. The KW only supports CW and SSB, the latter using a balanced modulator and the filter technique to generate the USB/LSB signals early in the Tx/Rx signal chain. The "feature" or component failure that causes the deafness and the lack of TX output is the use of a Kokusai mechanical filter (operating at 455KHz with a pass-band of less than 3KHz) in both the transmit and receive paths.

A very hot soldering iron, hacksaw or laser cutter is required to gain access to the filter internals. I chose a hacksaw. The filters are either inductive transducer or piezo resonator types. The type I dismantled was the former. On dismantling and cleaning up so I could see the internals, I found the coils (both sides) were O/C and thus not repairable. The left photo below shows how the foam support turns to 'goo' after 60 years. The right hand photo show the cleaned up filter revealing the filter elements. Cleaning the goo off away can often be all that's needed for some, but alas not for this particular filter. What you don't see is the two IF transformers on the back of the filter support and the 2 x20K Ohm resistors that form the entire filter block.





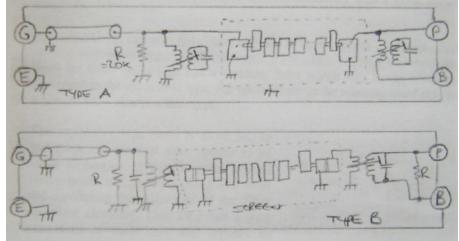
The filter shown is from a later KW2000B. I have not yet looked at the earlier KW2000A (also deaf), which I am hoping has the piezo resonator filter fitted. I am hoping the piezo type may have survived better than the inductive coil transducer design once the inevitable goo has been removed.

I am currently working on a design to modify the current design to accept a Murata Ceramic Band Pass Filter BPF type CFK455J resonator. engineering is in order.

>>>>> continued

I will let you know if the re-filtering fix works in my next Criggion ramblings.

There is quite a lot of data on the www on KW and this particular common fault, but for the moment, no "direct solder-in replacement" at any cost! Collins filters (from which the filter design was sourced) are available that would do the job, but individually they cost as much and more than I paid for all the KW equipment as a job-lot.



The drawing (left) shows the two types of filter. Top drawing shows the piezo type, lower the inductive transducer. How these work I have no idea. I guess they are rather high frequency tweeter!

I have not even looked at the VFO and Monitor Scope which I am told are very rare beasts. I also failed to report the smoke and bad smell that came off the mains filter, or the EF91 valve which is the main HF oscillator, or the severe crackling noise caused by a valve in the Rx IF chain.

You may well wonder why or what is the point of spending a lot of time and money in fixing up such a vintage transceiver of poor performance, compared to current transceivers? It is not an easy or cheap repair (ignoring the cost in time). I would counter this with my purchase of an Icom IC7300 (which seems to be a cracking transceiver) from our very successfully radio rally. They are like chalk and cheese in every way bar function, but I would not attack my 7300 with a hacksaw or enjoy re-designing the FPGA design if I had the ability to do so. We have such an amazing and diverse hobby that can take over house and home. If the Icom IC 7300 survives 60+ years and still works, I will be truly amazed.

Have a great Autumn.

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Steve GOFUW:- Just home from 2023 convention. Many thanks to all organisers, helpers and speakers who made it another great event. First time G5LOW made 2Way QRP QSO from the site, first time 30 power supplies were built in a lecture.

That members were asking for the date for 2024 as we were packing up suggests they

will be back.

Ham of Liberty (by M0XJA)

<u>Paul GOOER</u>:- Well it was a really great Convention. Some hands-on /P operation from Enzo MOKTZ, including a memorable two-way QRP with a French GQRP Club member in the Alps.

John GOUCP:- The ground work that the Telford club do is an essential part of the show. The Harper Adams is a delightfully healthy place to be in early September. It may be a bit awkward to get there but the breakfast and the fresh air more than make up for that.

The expected plus the un-expected

ost-HamFest drink

Padd my fa OUtwhere bits y super

Paddy G4MAD: - By far my favourite Radio Day OUt - a great 'flea market' where you can get lots of bits you didn't need AND superb talks.

Photos by G3UKV, G6DFD & M0XJA

John GOUCB:- Great day at Telford today. Thank you to those behind the scenes that make it happen. We need to bottle Enzo's (MOKTZ) enthusiasm and sell it to raise club funds.

<u>Paul G8AQA</u>:- On behalf of the UK Microwave Group I wish to thank all of those who made the Hamfest work so well. As you know some of the money goes towards keeping the microwave beacons running at the village hall.