

C.D.A.R.S.

JULY 2023

CHESHAM & DISTRICT AMATEUR RADIO SOCIETY MONTHLY NEWSLETTER



Wiggington, VHF Field Day on the 1st and 2nd of July



We meet the 2nd and 4th Wednesdays of the month at the Ashley Green Memorial Hall, Ashley Green, HP5 3PP

GeoBook 120



A fully-featured laptop to replace the clubs ageing equipment?

Logging software



This month I check out μ Log (pronounced micro log) by MOPZT to see if it's ideal for non-contest (Brill Wndmill) logging.

Laptop for logging

At £99.99 the GeoBook 120 is a fully featured laptop, I've tried it with μ Log and it seems to do well.

Phase Angles

I look at capacitors and inductors and their voltage and current phase relationship.

Morse Code

Morse Code facts that made us stop and think.



Spotlight

One of Jeremy's (G3XZG) QSO's from 2021, Gabrovo, Bulgaria.



Morse links

If you're interested in Morse code, here are a few useful links:



FISTS CW Club

Promoting Morse Code for 36 years 1987-2023

<https://fists.co.uk>

WIKIHOW

How to learn Morse Code

<https://www.wikihow.com/Learn-Morse-Code>

The Ham Whisperer

Morse Code Course

<http://www.hamwhisperer.com/p/morse-code-course.html>

LEARN MORSE CODE

LEARN MORSE CODE in one minute !

<http://www.learnmorsecode.com/>

Welcome to LCWO.net

Learn Morse Code (CW) Online!

<https://lcwo.net/>



Tools for learning Morse Code

<https://www.aa9pw.com/morsecode/>



Celebrating the unique art form of Morse Code

<https://cwops.org/>



Morse Code by Ray Burlingame-Goff (SK - 29th July 2021)

<http://www.g4fon.net/>

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Chairman - Dave Keston (G8FMC) **Secretary** - Malcolm Appleby (G3ZNU) **Treasurer** - Matt Whitchurch (M1DTG)
- Guy Plunkett (M0GUY) - James Stevens (M0JCQ) - Peter Holliday (2E0PTH)
- Roger Fellows (M7RMF)

All the above are members of the committee and can be contacted on cdars-committee@googlegroups.com

Editor - Bryan Page (M0IHY)

Welcome

It seems nobody noticed my unintentional mistake in last month's newsletter, all the page footers were dated May 2023 and page 19 had a photograph with a date of 14.10.1007, making Roger (G3MEH) somewhat very old indeed! An updated version has been put on the club website.

No HF contests for August.

Trying to get to grips with the phase relationships between voltages and currents in capacitors and inductors is quite a daunting subject, hopefully the explanation given in "**Phase, Capacitance and Inductance**" will make it less so.



I've tried the **GeoBook 120**, a promising laptop (thanks to Malcolm (G3ZNU) for finding this), with club logging in mind, and at £99.99 it's not a bank breaker! I think it's up to the job as regards non-contest logging, but would need feedback (G3ZNU?) for its contesting ability, maybe VHF Field Day would be the ideal test bed for it?

I look at M0PZT's "µLog" as a possible candidate for non-contest club logging (Brill Windmill, etc.), not too complex, I think it's just right for the job.

"Spotlight" is another of Jeremy's (G3XZG) CW QSO's from 2021.

Ofcom's proposed changes as reported by the ARRL in AmateurRadio.com are in reported A.O.B. along with Dave's (G8FMC) report on contesting.

VHF Field Day is this weekend (1st and 2nd July), hopefully I'll remember to take my camera on Saturday and capture some pictures for next month's newsletter.

Each month I try to fill the newsletter with what I think is interesting but I can't second-guess what you'd like to see, it would be helpful (and I would be grateful) if you could let me know what it is you'd like to see in the newsletter.

Bryan M0IHY

Chairmans Ramble

Where has the first half of the year gone? I can't quite believe it is that time again when I have to think of something to write. Funny, as I seem to not have a problem when it comes to talking?!

I believe Bryan is trying to get this out before VHF Field Day (1 – 2 July) so a report on that next time. After some discussion we are basically doing a repeat of last year. We are again in the Wigginton Field off Wick Road. Anyone who wants to help or just swing by to see 'what we are up to' is very welcome.

A significant 'Event' in June was the antenna test session we had on a very hot Saturday 10th June at the QTH of John G0ODQ, between Chinnor & Thame. For Roger M7RMF, John G0ODQ & myself the weekend started on Friday (another very hot day) when we put up the club 'Racal' poles that have been 'hiding' at the back of the garage of Terry G0VFW, for a few years! Sorting out what we had & how it went together was rather slow for the first mast, but it went very smoothly thereafter.

John & his wife June had very kindly made available their field to put up masts for a try-out of some wire antennas. As it turned out we rather took-over their garden & Bar-B-Q area as well! An unexpected treat was lots of lovely goodies prepared on said Bar-B-Q by John & June including lots of salad & other healthy trimmings from June's kitchen. How lovely & so nice of John & June. Rather better than a wilting sandwich in our bags?

Members present were: Malcolm G3ZNU, Peter 2E0PTH, Guy M0GUY, Roger M7RMF, Bryan M0IHY & Angie M6WTL, plus a very welcome visit from the highly experienced John G4CZB, our main man at Northampton R.C; as well as John G0ODQ & me of course.

We did not achieve all the intended antenna tests, due in part by a slight miss-calculation on my part! However a great time was had by all; great 'Team-building' exercise.

Look what the rest of you missed? (More details about the 'miss-calculation' another time)

The 50MHz Trophy Contest was on 17/18 June (See contest report). I was all set up & ready Saturday morning, so beamed roughly SE to see if there was any Sporadic E propagation about. Low, there was! I anticipated that the Sp-E might die as soon as the contest started (often does, that law again) so thought I might try a couple of rare (for me) non-contest QSO's. (As it turned out the Sp-E kept going for most of the day!)

I had 4 contacts, all 5&9 armchair copy within a short space of time:

- Luca HV5PUL in JN61GV @ 1,508km, the Pontifical Lateran University in the Vatican City (Quite pleased with that as fairly rare to get Vatican City)
- Marco IS0BSR in JN40PQ, Sardinia @ 1,472km
- Angel EA5Z in JM08CT @ 1,462km
- Pablo EA3EVL in JN00HR @ 1,252km

Because of the 'skip-distance', nothing at all from nearer EU! That is why it is known as 'The Magic Band'! Even a Dipole & a few watts can work.

On the evening of Wednesday 28th June a number of us visited the NRC (National Radio Centre) at Bletchley Park, instead of a meeting at Ashley Green. Martyn Baker G0GMB and 3 of his volunteers gave us a full viewing of all their considerable resources. A fascinating & enjoyable evening. We probably have another club night covered by a presentation from one of the volunteers?

73 all, Dave K, G8FMC (Chairman & Contest Coordinator)



Dave (G8FMC)

GeoBook 120 laptop

Source: the Internet



While discussing logging and laptops to add to / replace the clubs ageing stock Malcolm came across this, Amazon charges £99.99 (at the time of going to press), cheap for what it is.

A 12.5-inch Windows 10 laptop that brings portability and productivity together in a slender form factor. GeoBook 120 is designed to help you do more, offering a compact footprint to free up your workspace and a lightweight frame to unburden your backpack.

A 1-year subscription to Microsoft 365 Personal is included with GeoBook 120, offering access to leading productivity software such as Excel, Word, Powerpoint and more.

Light work

Powered by an Intel Celeron Dual Core processor and 4GB RAM, GeoBook 120 makes light work of essential tasks, browsing and more. 64GB of fast eMMC storage is built-in and can be expanded with the addition of a MicroSD card (up to 128GB).

An edge-to-edge keyboard maximises the space available, ensuring a comfortable and intuitive typing experience



Communication

A built-in front-facing 2MP webcam, dual microphone and 2 integrated speakers ensure you have the tools you need to communicate with friends, family or co-workers easily and efficiently. 802.11ac Wi-Fi brings reliable wireless connectivity less prone to interference from other devices.

Windows & Microsoft 365

With the widest range of software and peripheral device compatibility available, Windows is the only choice for productivity.

GeoBook 120 comes with Windows 10 Home in S-Mode ready to go, with an upgrade to Windows 11 Home when available at no extra cost on compatible models.

The included one-year subscription to Microsoft 365 Personal provides you with all the tools you need to get started immediately with premium Office apps including Word, Excel, PowerPoint, and Outlook plus 1 TB of OneDrive cloud storage to auto-save, keep in sync, and back up files and photos.



Connectivity

GeoBook 120's portable workspace profile is improved further by its connectivity options, a single USB Type-C port provides power and data, along with the facility to add multi-port expansion hubs. 2 USB 3.0 ports offer peripheral or external storage options and a Mini-HDMI port allows the connection of an additional screen to enhance your multitasking capability.

GeoBook 120 also features Bluetooth for wireless connectivity.

Technical Specifications

Item	Description
Operating System	Windows 10 Home (S mode)
Included Software	Microsoft 365 Personal 1-year (activation required within 180 days of Windows activation date)
CPU	Intel® Celeron® N3450 Processor (1.1GHz, Quad Core, 2MB L2 Cache)
Memory	4GB LPDDR4
Internal Storage	64GB eMMC
Expandable Storage	MicroSD Card Slot (128GB Max)
Interfaces	USB-C, 2 x USB 3.0, HDMI-Mini, 3.5mm Headphone/Mic Port
Connectivity	Wi-Fi 802.11 b/g/n/ac, Bluetooth 4.0
Camera	2.0MP Front-Facing
Display	12.5in HD TN (1366 x 768)
Graphics	Integrated Intel® HD Graphics 500
Battery	4500mAh, 7.6v Lithium Polymer
Weight	1148g

The spec isn't earth shattering (half the speed of an overclocked Raspberry PI), however, I think it's good enough for what we need in a laptop for club logging and it's far better than what we have.

I've used the GeoBook 120 with μ Log and found it works quite well, battery life is to be determined when used in earnest but shows anything from 4.5 hours to 7 hours, the good thing about this laptop is it has a 12v d.c. supply, meaning we can hook it up to the rig power supply, if required.

I can't see the need to increase the data storage (I have a 128GB SD card in the slot), I say this because the amount of logging the club does in a year won't make a dent in the storage, providing the laptop is just used for logging.

Only time will tell with possibly Malcolm (G3ZNU) informing us if it's good enough for contesting, I see no reason why not.

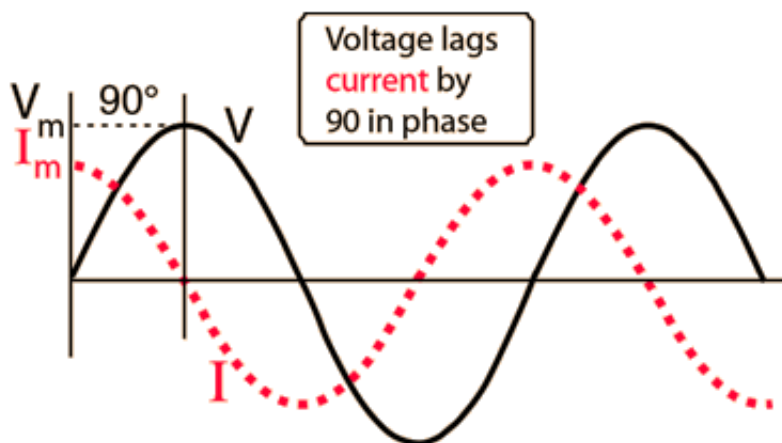
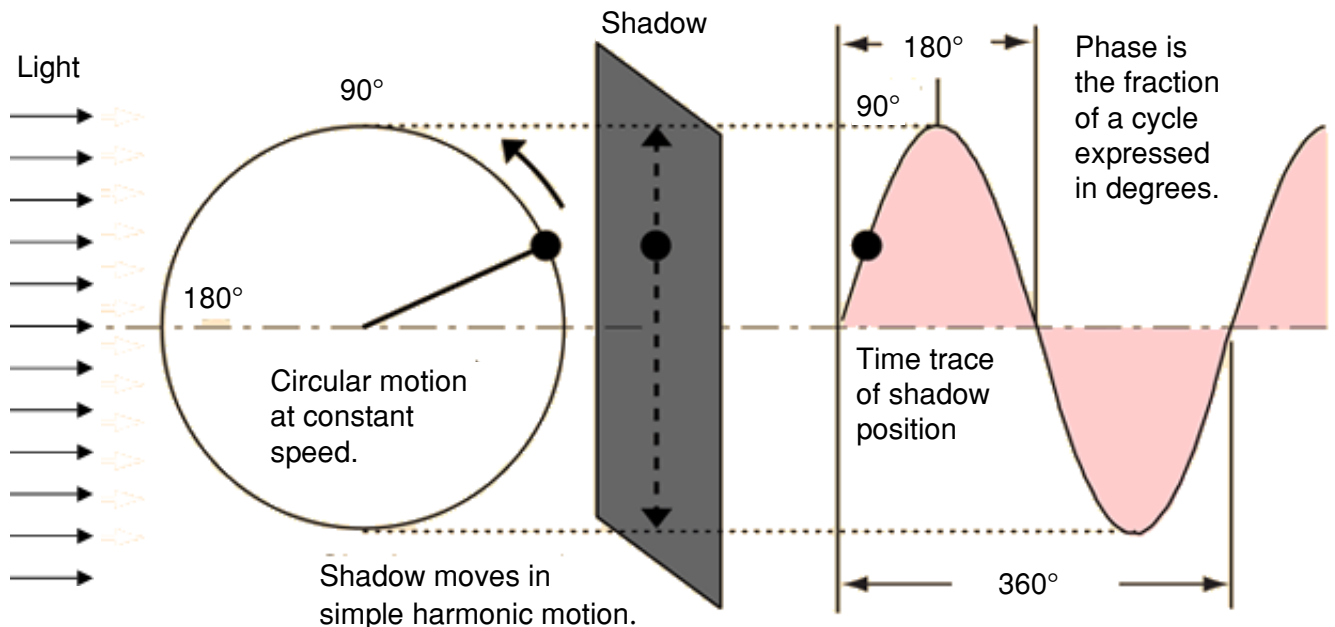
Bryan M0IHY

Phase, Capacitance and Inductance

Credit: the Internet

Phase

If a mass on a rod is rotated at constant speed and the resulting circular path illuminated from the edge, its shadow will trace out simple harmonic motion. If the shadow vertical position is traced as a function of time, it will trace out a sine wave. A full period of the sine wave will correspond to a complete circle or 360 degrees. The idea of phase follows this parallel, with any fraction of a period related to the corresponding fraction of a circle in degrees.



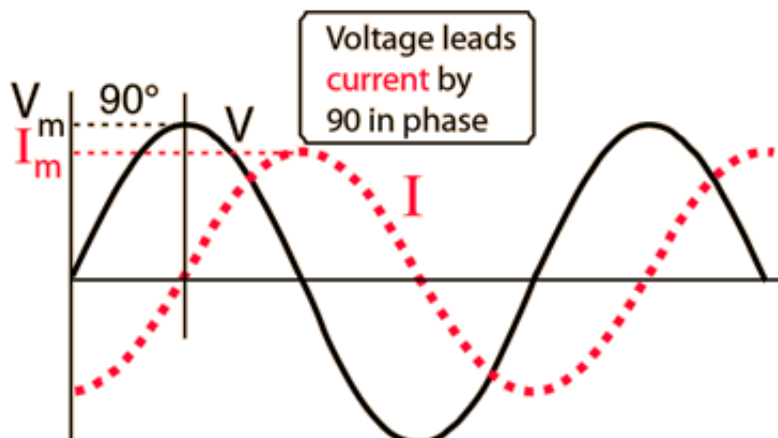
Capacitive Phase

As can be seen on the left, the current leads the voltage by 90°.

Imagine an empty tank, you turn the water on, the initial flow is maximum (**current**) while the level (**voltage**) builds up slowly.

Inductive Phase

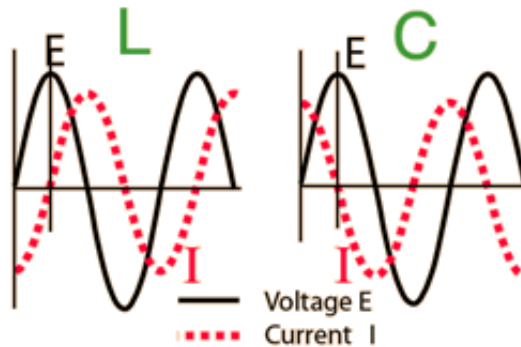
With a full tank you pull the plug out, the water doesn't immediately empty (**voltage**), it's restricted by the size of the pipe, thus restricting the flow (**current**), this is similar to the back E.M.F. generated by the collapsing **voltage** thus resisting the flow of **current**.



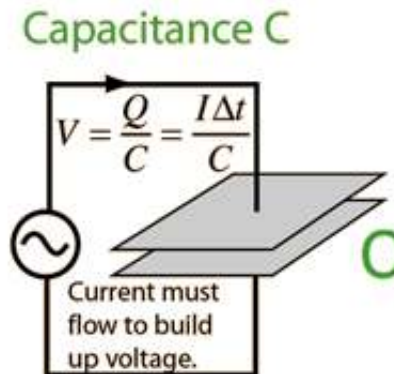
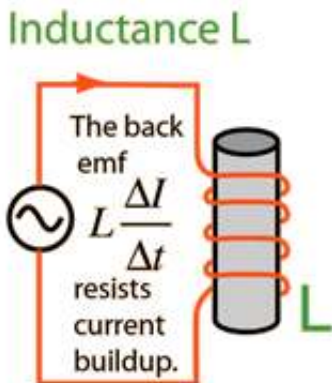
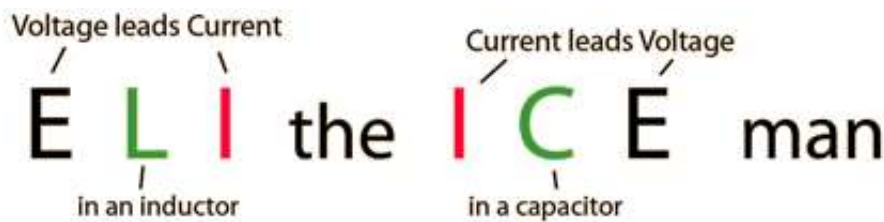
ELI the ICE man

A mnemonic for the phase relationships of current and voltage

When a **voltage** is applied to an inductor, it resists the change in **current**. The **current** builds up more slowly than the **voltage**, lagging it in time and phase.



Since the **voltage** on a capacitor is directly proportional to the charge on it, the **current** must lead the **voltage** in time and phase to conduct charge to the capacitor plates and raise the **voltage**.



μLog - a simple logging program by M0PZT

As a result of problems with logging during the Brill Windmill weekend I thought I'd look at what's out there for free and simple to use, [PZTLog](#) (Roger M7RMF found this) on <https://www.m0pzt.com/software>, this is a little complex for our needs for simple non-contest logging, then I looked at [μLog](#) (pronounced micro Log) by the same author, about as simple as you could get, and with the ability to carry the logs over to [PZTLog](#), should you want to.

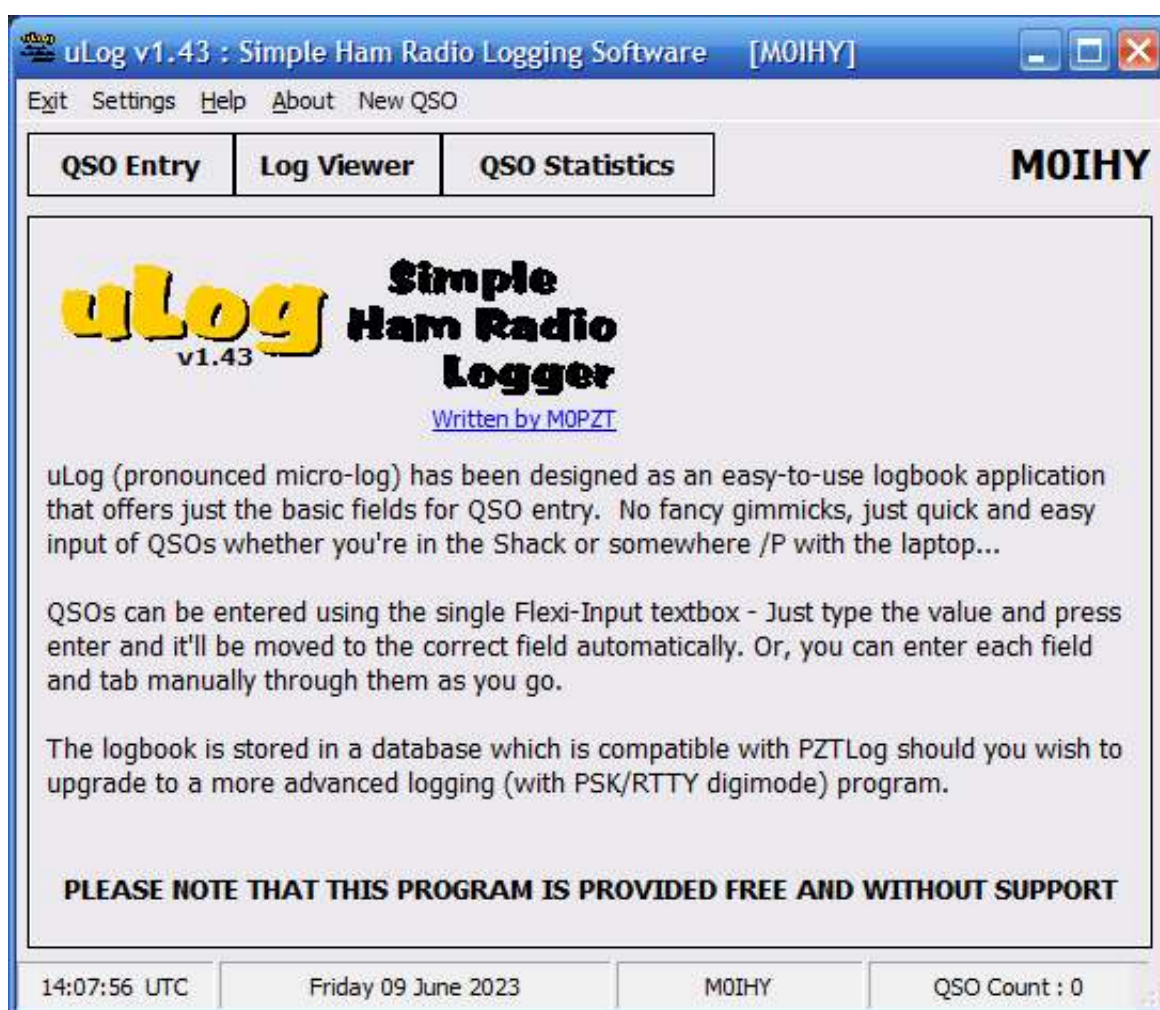
M0PZT's web site describes μLog as:

- [uLog v1.43](#)

Basic logging for your Shack PC – simple and effective!

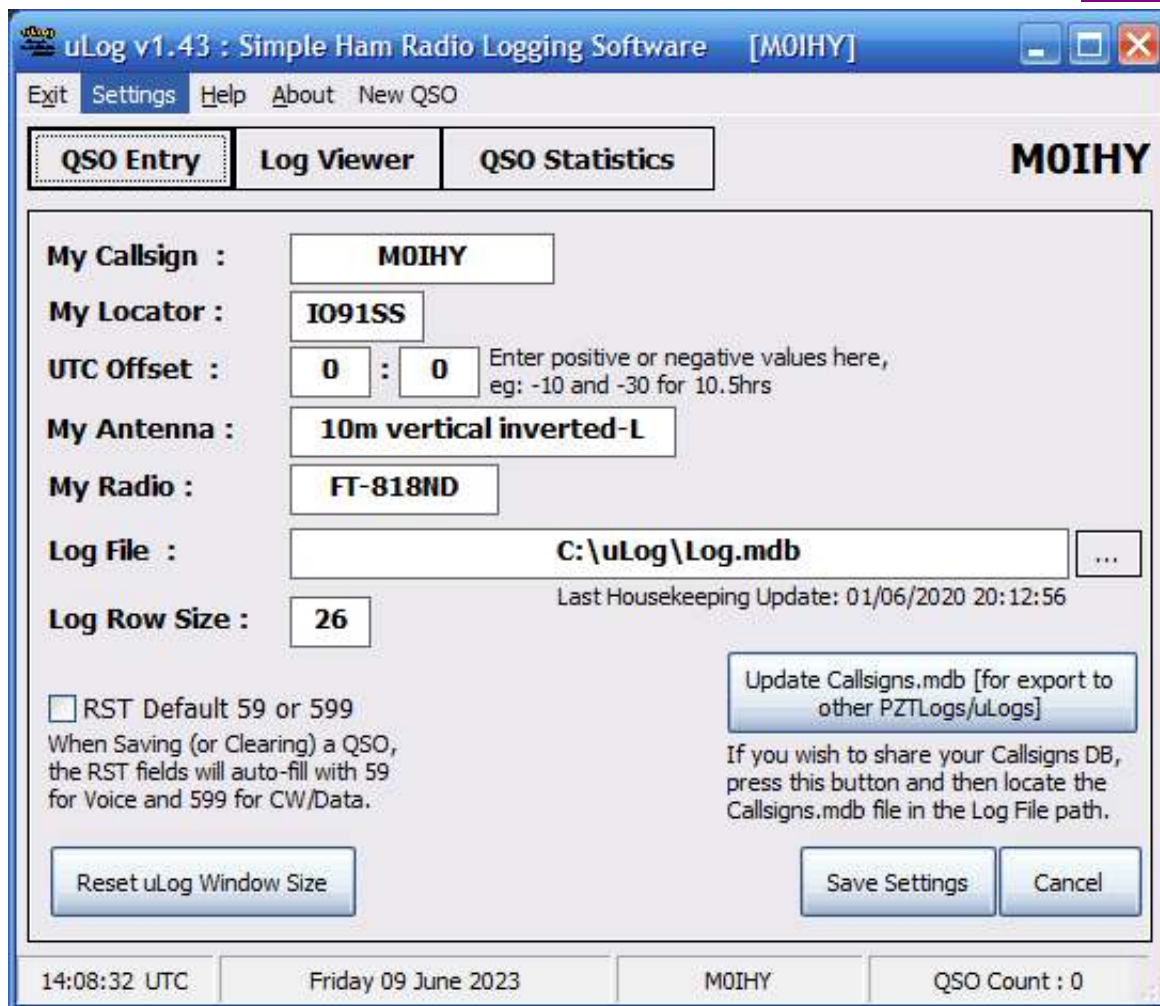
which I think is quite suitable for Brill Windmill and any other non-contest logging.

The first screen you get on running the program is:



note the callsign in the top bar, this is set up in settings.

Filling in the information in the **Settings** option is quite simple and self explanatory, I left everything at its default where necessary (**UTC offset**, **Log File**, **Log Row Size** and **Log Viewer**).



About as simple as it gets, especially pre-filling the RST fields.

Getting Started and Settings

Once you've installed the program, there are only a few configuration options to manage: Callsign, Locator Square, RST,59, Log File. If you like to know what Antenna and Radio you used to make a QSO, then you can type those in the settings, too.

If you encounter problems saving to the Logbook, saving the config settings or cannot edit the uLog.ini settings file manually, this may be due to User Account Control which locks-down your "Program Files" folder. A workaround is to install (or move) uLog to C:\uLog where everything should work fine. Other times, Windows may put everything into C:\Users\

UTC Offset : The UTC Hour+Minute Offsets allows you to work during British Summer Time or anywhere in the World. The values are a positive/negative number in relation to "local" time and UTC. So, during British Summer Time you would enter -1 as UTC is an hour behind BST. During the winter months it would be 0 as both times are the same. If, for example, you're in New York, you might enter -5 and so on. You can also specify positive/negative minutes if you need to.

Default RST 59 / 599 : When Saving (or Clearing) a QSO, uLog can auto-fill the RST fields with a default 59 or 599 which can be useful if you're logging quick QSOs as part of a pile-up or contest.

QSO Entry (not the 'New QSO' option)

The screenshot shows the 'uLog v1.43 : Simple Ham Radio Logging Software' window. The 'QSO Entry' tab is active. The interface includes the following fields and controls:

- Callsgn :** M6WTL (with a 'QRZ.com Lookup' button)
- 1st QSO :** England (with 'New DXCC' text)
- RST-Sent :** 59
- RST-Received :** 59
- Locator :** I091SS (with 'Omi, Okm Bearing: 0° [REV: 0°]' text)
- Frequency :** 14.2 (with '20m' text)
- Mode :** SSB
- Power :** 10
- Name :** Angie (with 'Send QSL Card' checkbox)
- QTH / City :** Hemel Hempstead
- Comments :** Test
- Flexi-Input :** (highlighted with a red dashed box)
- Buttons:** F5 : Save QSO, F6 : Clear QSO

The status bar at the bottom shows: 14:48:55 UTC, Friday 23 June 2023, MOIHY, and QSO Count : 3.

Flexi-Input

Entering a QSO

The main QSO Entry tab is for adding QSOs in real-time as each one is time+date-stamped with the current time as they are saved. The Flexi-Input textbox is the preferred method of QSO entry and allows a free-form entry. You can start at the Callsign if you wish - but you need to press <enter> to perform a New QSO+DXCC lookup before tabbing out of that field. The Flexi-Input allows you to type any information, press <enter> and let uLog place it into the correct field for you! This lets you enter information in any order and allows you to easily make a correction without having to tab or use the mouse.

A Callsign, RST-R, RST-S and Frequency are required to save a QSO - Ensure that you set the Frequency and Mode so that the Logbook Stats are calculated correctly! If you forget, the default band is 2m.

If you are "tabbing-through" the fields, you can type a Callsign and press <enter> to perform a search/lookup - uLog will auto-fill the Locator and Name+QTH (if known) from any existing QSOs. A Callsgns Database is provided which contains Callsgns, Names/QTH/Locator/WAB details which can be useful when you're away from the internet and wish to fill in a few blank details.

To save a QSO, click the "Save QSO" button or press F5. F6 allows you to "Clear a QSO" and start afresh.

To add a QSO from some time ago, eg: after a /P session or to type-up an old paper log - Click the "New QSO" menu and enter the QSO details as needed.

When "live-logging", the Flexi-Input textbox supports the following values:

Any Callsign value, eg: G9ABC, M6ZZZ, 2E0XYZ, K9ZZZ, DL1AAA and so on - If a (usually a special-event) Callsgn happens to consist of Letter, Letter, Number, Number, Letter, Letter - It will be treated as a Locator

Square. In this instance, enter the Callsign followed by *, eg: RA2ZZ* and this will treat it as a Callsign.

59S : RST-Sent, the signal report you give the other station

59 : RST-Rec'vd, the signal report that the other station gives you - If you are given a Serial Number by a contest station, you can enter 59001 or 599001 here

-nnS or +nnS for a JT65/JT9 signal report that you give

-nn or +nn for a JT65/JT9 signal report that you get

JO01FS (or JO01) for any Locator Square - Distance+bearing is also offered based-up your own Locator

N CHARLIE / NAME CHARLIE : The other station's Name

Q CHELMSFORD / QTH CHELMSFORD : The other station's City, Town, QTH etc

14.200 or any frequency from 1.8MHz (160m to 47GHz)

1W , 10W , 50W, 100W etc : Any RF output power level you must include the 'W' for it to recognise it as a power value.

CW, AM, D-STAR, FM, LSB, SSB, USB, PSK31, PSK63, PSK125, QPSK31, QPSK63, QPSK125, RTTY, JT65, JT9, FT4, FT8, SSTV, WSPR, WSJT, MS : Valid operating Modes

These Modes may be entered using Flexi-Input and any other value is interpreted as "Data" in the Log Viewer/Stats" - This is to allow for future modes etc

As you type text into the Flexi-Input box, a label next to it changes to tell you what it thinks the field is - pressing <enter> moves the text to the relevant log field. This method allows for simple entering of QSO data and with the Default RST 59/599 option, if you're operating /P, SOTA or working through a pile-up - you can log with ease.

At any point, you can return the cursor focus to the Flexi-Input box by pressing F11.

The screenshot displays the 'uLog v1.43 : Simple Ham Radio Logging Software' window for user 'MOIHY'. The 'QSO Entry' tab is active, showing a form with the following fields and values:

- Callsign:** [Empty] with a 'QRZ.com Lookup' button.
- RST-Sent:** 59
- RST-Received:** 59
- Frequency:** 14.2 MHz
- Mode:** SSB
- Power:** 10
- Locator:** [Empty]
- Name:** [Empty] with a 'Send QSL Card' checkbox.
- QTH / City:** [Empty]
- Comments:** [Empty]
- Flexi-Input:** [Empty]

At the bottom, there are buttons for 'F5 : Save QSO' and 'F6 : Clear QSO'. The status bar shows '14:53:13 UTC', 'Friday 23 June 2023', 'MOIHY', and 'QSO Count : 4'.

QSO Entry

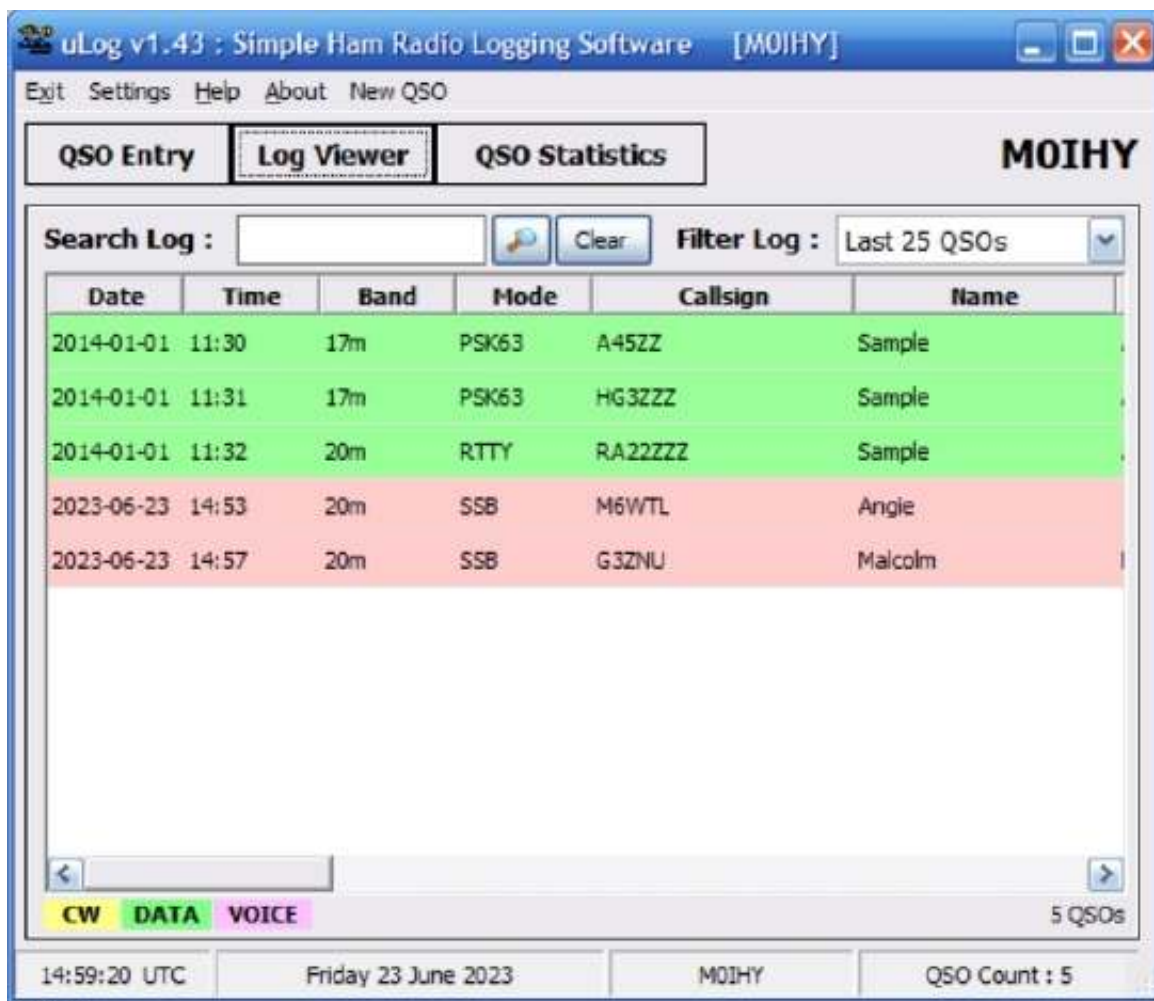
On pressing F5 to save the QSO, the Frequency, Mode and Power fields are pre-populated, thus saving to type them out again (unless you have a change).

Log Viewer

The Log Viewer tab allows you to see the last 25 or 50 QSOs plus a filter option for each Band plus CW, Data and Voice modes. You can also search using the textbox which will match Callsign, Comments, Mode, Antenna and Radio fields. If you mark a QSL to send when entering a QSL, the QSL Requested field will show on the QSO Editor - You can filter these QSOs as well, great for a QSL-Card writing session!

A right-click menu is available in the Log Viewer: Add Historic QSO, Edit this QSO, Delete Selected QSO/s, Open QRZ Profile for Callsign. The log columns can be re-sized and re-ordered if you wish - Just drag the main area to move them around. To auto-size them, just double-click the separating line or drag it to the new size you want.

You can refresh the Log Viewer at any time by pressing F9 (this mimics the Clear button).



Log Viewer

Editing QSOs

To edit a QSO, simply find it in the Log Viewer (you can search/filter if needed), double-click to open the Editor - make the changes, then click "Update QSO".

Managing QSLs : The QSL status of a QSO can be set whether you use eQSL, LoTW or Paper QSLs - When you set these, the Statistics are automatically updated.

The "?" button next to the Callsign (or pressing <enter> when typing a callsign) allows you to auto-populate the Name, QTH and Locator fields from an existing logbook QSO.

Edit QSO : G3ZNU

QSO Details

QSO Record : 2023062314572500

Date and Time : 23/06/2023 14:57:25 now

Mode : SSB

Frequency : 14.2 20m

Power : 10

Callsign : G3ZNU ?

Edit DXCC: England Full Licence

RST-Sent : 59

RST-Received : 59

Locator : IO90AB 135mi, 217km

QSL Pending : No

eQSL/Web Sent Paper Sent

eQSL/Web Rec'vd Paper Rec'vd

LoTW Sent LoTW Rec'vd

Name : Malcolm QTH: Malcolm's QTH

Comments :

My Antenna : 10m vertical Inverted-L My Radio : FT-818ND

Callsign Stats DXCC Stats

	160m	80m	60m	40m	30m	20m	17m	15m	12m	10m	6m	4m	2m	70cm	23cm
CW	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DATA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VOICE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Worked Confirmed via QSL

Update QSO Details Cancel / Close

Editing an existing QSO

uLog v1.43 : Simple Ham Radio Logging Software [MOIHY]

Exit Settings Help About New QSO

QSO Entry Log Viewer **QSO Statistics** MOIHY

MOIHY Logbook Statistics :

Band	QSOs
20m	3
17m	2
CW	0
SSB	2
DATA	3
ALL	5
YEAR	2
DXCC	5/0

15:02:49 UTC Friday 23 June 2023 MOIHY QSO Count : 5

Logbook Stats

Logbook Stats

The Stats tab displays a total of your QSOs per band along with a breakdown of CW, SSB and Data modes plus a DXCC “Worked/Confirmed” count as per the QSL status of each QSO.

Merge Existing PZTLog into uLog

You can now merge/sync an existing PZTLog (or PZTLogLite/Pro) logbook.mdb file into uLog by right-clicking the Log window and selecting the “Merge” option from the Import/Export menu. This routine will add any missing QSOs (by unique database ID) to the current active log file. This feature has been in PZTLog for a while but missing from uLog as the software has been left deliberately “basic”. Due to popular request, it has now been added.

Import/Export ADIF and Tabbed Text File

You can import an existing logbook using the ADIF format - Just right-click within the Log Viewer area and select “Import/Export” and browse for the ADIF file - You will then be told how many QSOs are found and then it will attempt to import the QSOs. There is a progress-bar at the bottom of the screen that will update as the import process does its “thing”...

The ADIF export filename will be located in the same folder as the uLog program and named: YourCall Log.adi

The ADIF import routine will also fill in the blanks on missing information (Name, QTH, Locator) from previous QSOs if required.

A Tabbed-Text-File can also be exported - this can then be opened in Excel and processed further.

Overall I found μ Log easy to use, and would recommend this as the logbook for any non-contest events.

Bryan M0IHY

CW corner

Credit: Internet and Charlotte Bond

Morse Code Facts That Made Us Stop and Think

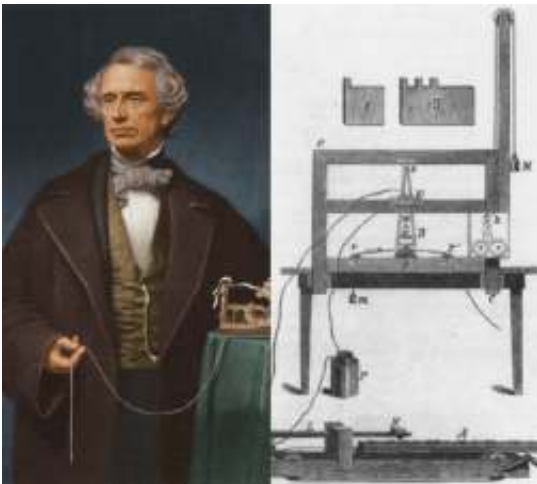


Photo Credit: Underwood Archives / Getty Images Photo Credit: Underwood Archives / Getty Images

Morse code was a groundbreaking development in its day. Not only did it have its place in wars and trade, but it was also used to send personal messages and to try and prove the existence of the afterlife. It was one of the crucial steps in creating the technology we take for granted today.

Here are some fun facts about Morse code at its influence on our modern-day life.

Inspired by a tragic event



Samuel Morse and his original telegraph machine

Samuel Morse and his original telegraph. (Photo Credit: 1. Hulton Archive/Getty Images 2. Public Domain via Wikimedia Commons)

Morse code was invented by Samuel FB Morse. Samuel was a gifted painter and inventor. He came up with the idea after he received a horse messenger informing him that his wife was ill. The message had taken so long to reach him that by the time he came home, she'd not only passed away but had already been buried.

After seeing electromagnetic experiments, Morse and his assistant Alfred Lewis Vail set about creating an electromagnet machine that would respond to an electric current sent along wires. The first message they transmitted read: "A patient waiter is no loser."

The first long-distance telegraph test was conducted on May 24, 1844. Standing before government officials, Samuel (who was in Washington, DC) sent a message to Alfred (who was in Baltimore). An onlooker suggested “What hath God Wrought?” as the message. The words traveled 40 miles before they were recorded on paper tape.

Samuel’s invention had the desired effect: messages could be received in minutes rather than days, and the Pony Express officially ceased operation in 1861 after the telegraph and Morse code became the more popular communication method.

Morse code today doesn’t really resemble what Morse invented

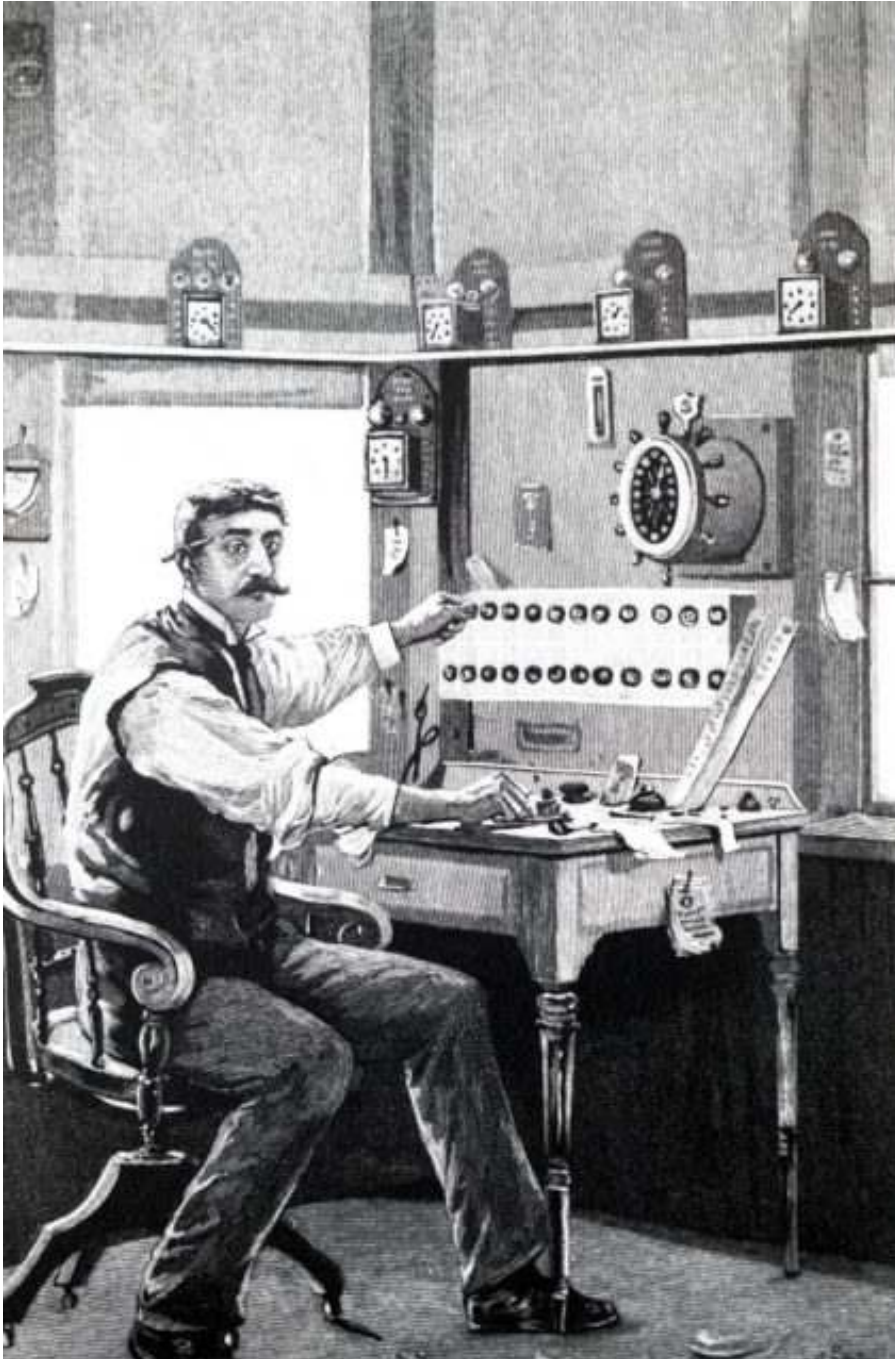


Illustration depicting a train dispatcher using a Morse key to send a message down the line on the railway telegraph system. Dated 19th century. (Photo Credit:: Universal History Archive / Universal Images Group via Getty Images)

Morse code assigned short and long signals to letters, numbers, punctuation, and special characters. Samuel’s own code initially only transmitted numbers. It was Alfred who added the ability to communicate letters and special characters. He spent time examining how frequently each letter was used in the English language. Then he assigned the shortest marks to the most common ones.

Since this code was started in America, the first code was known as American Morse code or Railroad Morse since the railroads used it widely. Over time, the code was simplified further by others (such as Friederich Clemens Gerke) to be more user-friendly. Eventually, an International Morse Code was created in 1865. It has been adapted to create a Japanese version called Wabun code and a Korean one called SKATS (Standard Korean Alphabet Transliteration System).

Morse code is not a language but can be spoken



Quartermaster 2nd Class Tony Evans of Houston, Texas, sends Morse code signals. (Photo Credit: U.S. Navy)

Crucially, Morse code is not a language because it is used to encode existing languages for transmission.

Originally, the electrical impulses would arrive at a machine that would make indentations on a piece of paper, which an operator would read and transcribe into words. However, the machine made different noises when it marked a dot or a dash, and the telegraph operators began to translate the clicks into dots and dashes just by listening to them and writing it down by hand.

After that, information was sent as an audible code. When the operators were talking about messages received, they would use “di” or “dit” to describe a dot and “dah” for a dash, creating yet another new method

for transmitting Morse code. Skilled operators could listen to and understand code at a rate in excess of 40 words per minute.

SOS was created specifically for Morse code



Photo Credit: Dutch National Archives / Fotocollectie Anefo, CC0

Guglielmo Marconi set up the Wireless Telegraph and Signal Co. Ltd in 1897. He'd noticed that ships and lighthouses needed to communicate swiftly but didn't have access to the cable network, so his wireless technology was designed to appeal to them. By the early 1900s, telegraphy was widely used on ships.

It was decided that it would be a good idea to have an international distress signal to help rescue ships. The International Radiotelegraphic Convention decided in 1906 that "SOS" was the best choice because it was quite simple: three dots, three dashes, three dots.

Once it was adopted, some people suggested that this combination of letters had been chosen because it stood for "save our souls" or "save our ship," but in fact, it was chosen because it was simple to remember and easy to recognize.

Morse code saved lives aboard the Titanic



The only known photo of the Titanic's wireless room.
(Photo Credit: Francis Browne / Wikimedia Commons, Public Domain)

In April 1912, more than 1,500 of 2,224 passengers on the Titanic perished when the ship sank. Those who survived owed their lives in part to Morse code, which had been used to alert the Cunard liner Carpathia as to the Titanic's final position and fate.

By the time the Titanic set sail, most passenger ships in the North Atlantic had a Morse code installation, run by those trained by Marconi's company.

At the time, it was quite fashionable for passengers to ask the Marconi operators to send personal messages on their behalf. With no dedicated emergency frequency, this meant that the channels were jammed with passenger messages, and so the Titanic's distress call was diluted, going unheard by some ships.

However, the message was received by Harold Cottam on the Carpathia, and the ship changed course and traveled for four hours to offer assistance.

Eagle-eyed viewers of the 1997 movie Titanic might notice that the captain instructs the senior wireless operator Jack Phillips to send the distress call "CQD." This set of letters had been adopted by the Marconi Company before the 1908 decision settled on SOS, and these letters were still used by some ships post-1908.

Interestingly, a deleted scene from the movie shows that after the captain leaves, Harold Bride (the assistant operator) says to Phillips: "Send SOS. It's the new call, and it may be your last chance to send it." This is in reference to a real conversation that occurred between the two men.

Morse code as inspiration in music



Mick Jones and Joe Strummer and 'The Clash' performs at Warfield Theater in California on March 2, 1980.
(Photo Credit: Larry Hulst/Michael Ochs Archives/Getty Images)

Morse code has very definitely been incorporated into some songs. At the end of London Calling by The Clash, Mick Jones plays a string of Morse code on his guitar, the rhythm being SOS. Kraftwerk's single Radioactivity contains two instances of "radioactivity" being spelled out using Morse code.

Perhaps the most famous inclusion of Morse code into music was *Better Days* by Natalia Gutierrez Y Angelo. This song was created specifically to contain a Morse code message to soldiers being held by The Revolutionary Armed Forces of Colombia. The message read: “19 people rescued. You are next. Don’t lose hope.” Many prisoners later confirmed that they’d heard the message and either escaped or were rescued.

A last cry before eternal silence



Free French naval recruits learning Morse code in England, ca. 1943. (Photo Credit: Keystone/Getty Images)

As technology advanced, Morse code was left behind. When the French Navy officially ceased using it on January 31, 1997, they chose a poignant farewell as their final message: “Calling all. This is our last cry before our eternal silence.”

The final commercial Morse code message was sent in the United States on July 12, 1999, from the Globe Wireless master station near San Francisco. The operator signed off with Morse’s original message of “What hath God wrought?” followed with a special sign that means “end of contact.”

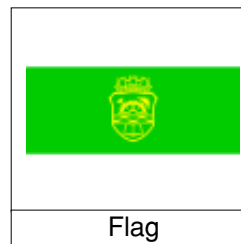
While Morse code is not widely used today, that doesn’t mean it isn’t helpful in some areas. Amateur radio operators continue to use it, and it can be especially useful to know as a method of communicating in an emergency when more sophisticated means of communication fail. For example, it can be used by tapping your fingers, flashing a torch, or blinking your eyes. For ships, using signal lamps with Morse code can be a way to allow communication during radio silence.

Even though knowledge of Morse code today is more often acquired as a fun skill or a hobby, there can be no denying the influence that telegraphy and Morse code had on the history of technology.

Spotlight - Gabrovo, Bulgaria

QSO with LZ2RS, Rumen Stefanov (Rumi), Gabrovo, Bulgaria

Band: 15m	QTH: Gabrovo
Mode: CW	Coordinates: 42°52'N 25°20'E
Date: 2 nd January 2022	Time Zone: UTC+2/3
Time: 12:52z	Population: 48,133 (as of 2021)



Source: [Wikipedia](#)

Gabrovo is a city in central northern Bulgaria, the administrative centre of Gabrovo Province.

It is situated at the foot of the central Balkan Mountains, in the valley of the Yantra River, and is known as an international capital of humour and satire (see Gabrovo humour), as well as noted for its Bulgarian National Revival architecture. Gabrovo is also known as the longest town in Bulgaria, stretching over 25 km along the Yantra, yet reaching only 1 km (0.6 mi) in width at places. The geographic center of Bulgaria - Uzana - is located near the town.



Gabrovo Town Hall

According to the most widespread legend, Gabrovo was founded by a blacksmith called Racho, close to whose fireplace a hornbeam rose, so the settlement acquired its name, from the Slavic word gabar ("hornbeam") + the Slavic suffix -ovo.



Bulgarian Orthodox Theophany Crucession in Gabrovo. The priests are going to throw a wooden cross in Yantra. Believers will then jump into the icy waters to "save" the cross.

The area around Gabrovo, inhabited since the Neolithic, gained economic importance after Veliko Tarnovo became capital of the Second Bulgarian Empire in the 12th century. Craftsmanship and trade prospered due to the proximity to both the capital and the Balkan passes. Medieval Gabrovo was a small pass village of about 100 houses.

After the Ottoman invasion of the Balkans in the 14th century, the demographic position of Gabrovo changed significantly, as it was the only settlement in a considerably large geographic area and an attractive place for Bulgarians fleeing from the conquered capital and neighbouring fortresses. It turned from a village into a small town (palanka) and began to develop as an economic, cultural and spiritual centre.

wooden cross in Yantra. Believers will then jump into the icy waters to "save" the cross.

During Ottoman rule, the rich tradesmen spent plenty of resources for the small town's public planning. The first Bulgarian secular school, the Aprilov National High School, was founded in Gabrovo in 1835 with the aid of Vasil Aprilov and Nikolay Palauzov. Gabrovo was officially proclaimed a town by the Ottoman authority in May 1860. In the 1870s Felix Kanitz said that Gabrovo is "a big workshop" and that it is a "city that lives from the water," referring to widely used water power. The glory of the goods of Gabrovo became known throughout the Ottoman Empire, and beyond that, in Bucharest even nowadays there is a street named "Gabroveni".



Statue of Racho Kovacha

Shortly before and after the Liberation of Bulgaria in 1878, Gabrovo developed as a centre of industry on the basis of its economic traditions. Joint-stock companies emerged, factories were constructed and connections to the large stock exchanges were created, prompting some to label the town “The Bulgarian Manchester”.



The Bulgarian National Revival church of Gabrovo, an architectural monument.

Gabrovo saw its most rapid growth in the post-World War II years, when its population was doubled. Following general population trends in Bulgaria, the number of citizens started declining after the fall of Communism in the country. People started emigrating abroad or to the capital of Sofia. Currently, Gabrovo is more than 20,000 people short of its peak, achieved in the period 1985-1991 when the number of the residents exceeded 80,000. The following table presents the change of the population after the liberation of the country in 1887. According to Census 2011, as of February 2011, the population of the town was 58,950 inhabitants.

Year	1887	1910	1934	1946	1956	1965	1975	1985	1992	2001	2005	2009	2011	2021
Population	7,958	8,423	13,668	21,180	37,919	57,920	75,091	81,629	76,529	67,065	63,004	60,291	58,950	48,133
Highest number 81,786 in 1986														
Sources: National Statistical Institute, citypopulation.de, pop-stat.mashke.org, Bulgarian Academy of Sciences														

Jeremy, G3XZG

Contest Corner

July			
HF			
Day	Date (2023)	Time UTC	Contest Name
Mon	03 Jul	1900-2030	80m CC CW
Wed	12 Jul	1900-2030	80m CC SSB
Sun	16 Jul	900-1600	International Low Power Contest
Mon	17 Jul	1900-2030	RSGB FT4 Contest
Thu	27 Jul	1900-2030	80m CC DATA
Sat-Sun	29-30 Jul	1200-1200	IOTA Contest
VHF			
Day	Date (2023)	Time UTC	Contest Name
Sat-Sun	01-02 Jul	1400-1400	VHF NFD
Sun	02 Jul	1100-1500	3rd 144MHz Backpackers
Tue	04 Jul	1800-1855	144MHz FMAC
Tue	04 Jul	1900-2130	144MHz UKAC
Wed	05 Jul	1900-2100	144MHz FT8 AC
Tue	11 Jul	1800-1855	432MHz FMAC
Tue	11 Jul	1900-2130	432MHz UKAC
Wed	12 Jul	1900-2100	432MHz FT8 AC
Thu	13 Jul	1900-2130	50MHz UKAC
Sat	15 Jul	1400-2000	70MHz Trophy Contest
Tue	18 Jul	1900-2130	1.3GHz UKAC
Thu	20 Jul	1900-2130	70MHz UKAC
Tue	25 Jul	1830-2130	SHF UKAC
Sat	29 Jul	1400-1800	4th 144MHz Backpackers
August			
VHF			
Day	Date (2023)	Time UTC	Contest Name
Tue	01 Aug	1800-1855	144MHz FMAC
Tue	01 Aug	1900-2130	144MHz UKAC
Wed	02 Aug	1900-2100	144MHz FT8 AC
Sat	05 Aug	1400-1800	144MHz Low Power Contest
Sun	06 Aug	800-1200	432MHz Low Power Contest
Tue	08 Aug	1800-1855	432MHz FMAC
Tue	08 Aug	1900-2130	432MHz UKAC
Wed	09 Aug	1900-2100	432MHz FT8 AC
Thu	10 Aug	1900-2130	50MHz UKAC
Sun	13 Aug	1400-1600	70MHz Cumulatives # 5
Tue	15 Aug	1900-2130	1.3GHz UKAC
Thu	17 Aug	1900-2130	70MHz UKAC
Tue	22 Aug	1830-2130	SHF UKAC

For sale and wanted

If anybody has anything for sale, or wants anything, then this is the place to ask, photo's and descriptions will help, email me at bryanpage1@btinternet.com.

Any other business

As reported by the ARRL in AmateurRadio.com

Ofcom Proposes Multitude of Changes to Licensing Framework

Ofcom, the communications regulator for the United Kingdom, is requesting feedback to potential changes to the amateur radio licensing framework.

Just a few of the changes outlined in the 101 page proposal include:

- Only permit licensees to hold a single individual licence, requiring surrender of lower licences as they progress
- Streamline and modernise call sign assignment
- Increase the maximum permitted transmit power to allow 20 Watts for Foundation and 100 Watts for Intermediate licensees in most bands; and 1000 Watts for Full licensees in bands where amateur radio has a primary allocation
- Permit the deployment of repeaters, beacons and gateways without requiring a NoV in most cases
- Allow Foundation licensees to build their own equipment and access the 2.4 GHz and 5 GHz bands
- Enable low power airborne use in some frequency bands

The full proposal is available via PDF on the Ofcom website.

Ed: I'm not sure about you, but I feel the proposed 100W for Intermediate licensees will not encourage them to progress to Full license, the 1000W allowance will probably not be achievable for most because of the proximity of their neighbours.

Contests/Operating by Dave G8FMC

We had a great start in the VHF Championship – AFS (Affiliated Societies) section where CDARS & friends managed 2nd place after two events. Then because of no 10GHz capability we slipped to 3rd overall. The 432MHz Trophy (reported on in the June Newsletter) produced good results and we have now also got the results in from the 144MHz event of 20/05/23. Another great session, with 6 entries & John GOODQ in 3rd spot in the 6hr Single-Op fixed category. That has now go us back up to 2nd. Well done team.

The latest results we are waiting on with baited-breath is the 50MHz Trophy. Here again we fielded 7, just 1 less than the lead Hereford team. We have some good scores so should hold 2nd place? Thanks to all who participated. Malcolm did rather well operating G1MDG from the QTH of G3MEH on the Saturday, with Roger doing Sunday under his own call. Lots of Sporadic-E propagation, which was exciting & just for a change I got quite a bit of it in my selected 6hrs of the 24hrs! I am just behind John GOODQ in 6S category claimed scores. Rather better than my norm for this one. I must admit after sticking to just 10W for this years UKAC's it was fun to 'play' with about 350W on 6m!

As stated before the AFS VHF Championship is definitely a 'numbers-game' where every entry however modest does make a difference to the total!

The UKAC's (United Kingdom Activity Contests) are the Tuesday & Thursday evening sessions each month. A number of CDARS members enter this regularly, but under the Northampton 'banner', under our joint relationship' scheme. (Northampton contribute to CDARS for a number of the weekend & HF events) . This year is going very well with Northampton (NRC; Not to be confused with 'The NRC' at Bletchley!) currently in a fairly comfortable 3rd place. In fact the CDARS & 'Friends' (Associate members) contribution has been VERY significant this year!

Perhaps we should be listed/known as NRC & CDARS? Comments please 'on-a-postcard'; actually no, email is preferred!

73, Dave K, G8FMC