

# Ham Radio Ireland



*Δξ πρεσβαλ αρ θραιδισιύιν Δξυς αρ σπιοραδ αν ραιδιό Αμαιτέαρχ*



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June 2026



Ham Radio Ireland has been well supported and we have achieved over 40,000 downloads from our links in over 68 countries over the last year.

It is a fact that we are the ONLY Independent Radio Magazine in Ireland geared towards the Radio Experimenter.

We repeat forthcoming events in our News Section right up to their date of operation. In this way we hope to encourage many groups or clubs to take part. If you have an event planned feel free to promote it through our Magazine

Through the Collective Communications Group, Ham Radio Ireland was re-launched in January 2025. This magazine is for all radio amateurs and electronics experimenters! We remain non political in all respects of the hobby. We will endeavour to print any radio orientated articles submitted to us.

We ensure interesting and vibrant articles and we endeavour not to appear like a parish newsletter.

Special thanks to the many who have supported this Magazine and encouraged us to re-launch it. By popular demand no less!

We publish bi-monthly and welcome any articles from Amateur Radio circles and CB or PMR 446 operators.

We primarily seek technical articles covering home built equipment, antennas, outdoor portable operating, VHF, UHF, Microwave and Satellite operation.

If you have never written an article before - NOT A PROBLEM.

We welcome Feedback  
If you enjoyed this publication please email  
Steve EI5DD  
wright14@gmail.com

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## Submitting Items for This Magazine

We are always delighted to receive any radio related material for this magazine in word format. Pictures should be submitted in an uncompressed JPG format to ensure best quality reproduction.



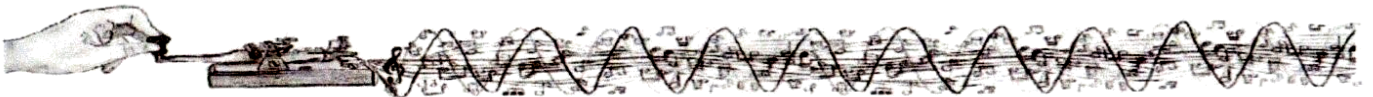
**Cover Image**  
John, EI3HQB, Jeffrey EI7IRB, and Wayne EI7HKB at the SOS Weekend in Tramore Co. Waterford

Views expressed in this publication do not necessarily reflect the views of the Editor, those of Carrion Press, Ham Radio Ireland or EI3CC

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# Want to become Member



**Contact us and we can give you info on the options available.**

**this year we can now offer public liability insurance per individual.**

**Standard membership €10.00**

**Membership with cover €15.00**

**you can pay via Paypal:  
collei3cc@gmail.com  
or Revolut: @john83mj6**



# News and Forthcoming Events Planning

## Freedom of association: a right in danger in amateur radio

Some IARU RI member societies have threatened their members with expulsion if they join EURAO, clearly violating freedom of association, a fundamental right enshrined in article 12 of the EU Charter of Fundamental Rights.



The "argument" put forward by these societies is that EURAO is a competitor, overlooking the fact that IARU and EURAO are also collaborators in areas of common interest, such as CEPT. And if they don't remember that, they should see the [joint statement resulting from the 2017 meeting](#) between both organizations.

For this reason, EURAO does not rule out taking appropriate legal action if the case arises, beyond the crude and stupid threat.

We know that it seems incredible that this mentality is still in force today, but it is and we will do everything possible to unmask and combat it. Some would need to brush up on their **HAM SPIRIT**...

## Parks On The Air

Currently POTA has 5 official events throughout the year, as detailed below.

Events start at **00:00:00 UTC** and end **23:59:59 UTC** on the days listed:

### New Year's Week

First full week of the new year. January 1-7, 2026

Casual contacts to help ring in the new year!

### Support Your Parks

This event happens seasonally, on the 3rd full weekend of the month (Saturday & Sunday UTC). These are 'activity weekends' where the main purpose is to get out in the parks, and have as much fun as possible.

**Winter** - 3rd Full Weekend of January. January 17-18, 2026

**Spring** - 3rd Full Weekend of April. April 18-19, 2026

**Summer** - 3rd Full Weekend of July. July 18-19, 2026

**Autumn** - 3rd Full Weekend of October. October 17-18, 2026

More Info: <https://docs.pota.app/>

## We Have a Facebook Page Ham Radio Ireland



<https://www.facebook.com/groups/1437072523434876>

## EURAO European Radio Amateurs' Organization

the open global radio amateurs community



EURAO was established to promote and support the interests of amateur radio operators across Europe and around the world. For two decades, it has provided a strong voice for hams, encouraging cooperation, technical advancement, and friendship among radio amateurs globally. Whether you're chasing special event stations, participating in EURAO activities, or simply curious, thank you for stopping by. We appreciate your QSO and your interest in amateur radio! In a very short period of time, EURAO has managed to gather around itself many radio amateurs from all over the world in an exciting collective project that has received recognition from many international bodies.

Association, clubs, groups and individuals are part of this young, global and open ecosystem called European Radio Amateurs' Organization. Thanks to all for your support.

## EURAO Public Liability Insurance

The purpose of this insurance, with a coverage of 9.000.000 EUR, is to guarantee the pecuniary consequences of the civil liability incumbent on the insured due to consequential bodily, material and immaterial damage caused to third parties as a result of their radio amateur activities, including travel, and events organized by the subscriber, including assembly and disassembly operations.

This means, translated to our activity, a plus of relief when we do radio outside our QTH, either on the beach, in the countryside, in a park or in the mountains, as in the case of field days or SOTA.

EURAO also provides coverage in an urban environment, such as in a square, in a schoolyard or inside a classroom in a workshop with students, or with scouts in their venue or campground.

In addition to covering contingencies, this insurance is useful to obtain authorization to carry out activities in the public space, which is mandatory in some countries.

The coverage of this insurance is worldwide, with some limitations for the USA and Canada. More Info: <https://www.eurao.org/en/node/1130>



WWFF, World Wide Flora and Fauna in Amateur Radio, is encouraging licensed ham radio operators to leave their shacks and go outside operating portable in Protected Flora & Fauna areas (PFF) all over the world.

## Irish Net

Active not only on Sundays, but most weekdays starting at around **16:00 UTC**, the **informal gathering on 14.156 MHz** frequently suffers from QRM during contests and DXers unaware of this long standing net of North American operators with an Irish connection. In a recent contact on 20m with W11DP, QTH Tucson Arizona, operator Jerry confirmed that the net now also uses the **17m band operating on 18.112 MHz** moving up in increments of 3KHz. This move avoids the increased QRM on 20m and taking advantage of improved propagation conditions.

# News and Forthcoming Events Planning

## Ham Radio Ireland Now in Two Formats

Ham Radio Ireland now comes in two formats. Recently we introduced the new Flip book format which is similar to the ARRL and RSGB digital format. Apart from reading this on line it is possible to download the PDF File by clicking on the cloud icon. We retain the traditional “Docdroid” download page where the magazine can be read page by page. Current and back issues may be downloaded in both formats and maybe accessed from:

<https://galwayvhfgroup.blogspot.com/2022/06/connacht-regional-radio-newsletter.html>



## YOTA Summer Camp 2026

The [IARU Region 1 Youth Committee](https://www.iaru-r1.org/), together with ÖVSV (Österreichische Versuchssenderverband), are pleased to



announce the 14th annual YOTA (Youngsters On The Air) Summer Camp, which will take place in Wagrain, Austria, from 25 July to 1 August 2026. Following the announcement made during the closing ceremony of the 13th YOTA Summer Camp in Jambville, France, preparations are now underway for another exciting week of international

friendship, learning, and amateur radio activities. The camp will once again bring together motivated young radio amateurs from across IARU Region 1, together with guest teams from Regions 2 and 3. Besides being a unique opportunity to meet other young people, discover new cultures, and enjoy amateur radio in an international environment, the camp is also designed to help participants grow as ambassadors for youth activities in their home countries.

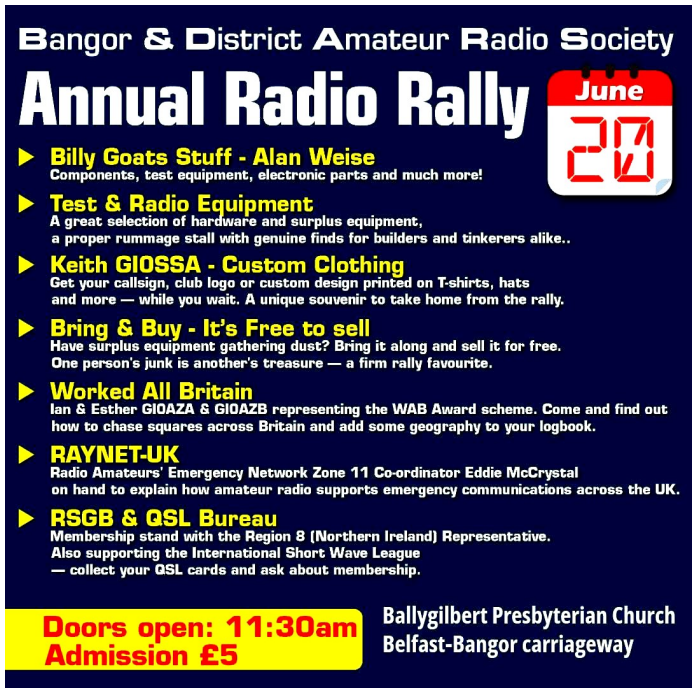
<https://www.iaru-r1.org/2026/yota-summer-camp-2026-to-take-place-in-wagrain-austria/>



**NH 2026**  
National Hamfest  
25th & 26th September 2026



**NH NATIONAL HAMFEST**  
Britain's biggest amateur radio event!  
25-26 September  
George Stephenson Hall, Newark Showground, NG24 2NY  
**SAVE THE DATE**  
TICKETS ON SALE FROM 1 MAY  
EARLY BIRD DISCOUNT AVAILABLE



**Bangor & District Amateur Radio Society**  
**Annual Radio Rally** June 20  

- ▶ **Billy Goats Stuff - Alan Weise**  
Components, test equipment, electronic parts and much more!
- ▶ **Test & Radio Equipment**  
A great selection of hardware and surplus equipment, a proper rummage stall with genuine finds for builders and tinkerers alike..
- ▶ **Keith GIOSSA - Custom Clothing**  
Get your callsign, club logo or custom design printed on T-shirts, hats and more — while you wait. A unique souvenir to take home from the rally.
- ▶ **Bring & Buy - It's Free to sell**  
Have surplus equipment gathering dust? Bring it along and sell it for free. One person's junk is another's treasure — a firm rally favourite.
- ▶ **Worked All Britain**  
Ian & Esther GIOAZA & GIOAZB representing the WAB Award scheme. Come and find out how to chase squares across Britain and add some geography to your logbook.
- ▶ **RAYNET-UK**  
Radio Amateurs' Emergency Network Zone 11 Co-ordinator Eddie McCrystal on hand to explain how amateur radio supports emergency communications across the UK.
- ▶ **RSGB & QSL Bureau**  
Membership stand with the Region 8 (Northern Ireland) Representative. Also supporting the International Short Wave League — collect your QSL cards and ask about membership.

**Doors open: 11:30am**  
**Admission £5**  
Ballygilbert Presbyterian Church  
Belfast-Bangor carriageway

## Intentional Lighthouse and Lightship Weekend 15th - 16th August 2026



This major event which takes place in August is the International Lighthouse Lightship Weekend, [ILLW](https://illw.net/), which came into being in 1998 as the Scottish Northern Lights Award run by the Ayr Amateur Radio Group.

It is also free and there are no prizes for contacting large numbers of other stations.

In Britain the Association of Lighthouse Keepers, conducts International Lighthouse Heritage Weekend on the same weekend as the ILLW in August. Their objective is to encourage Lighthouse managers, keepers and owners to open their lighthouse or lightstation and related visitors centres to the public with a view to raising the profile of lighthouses, lightvessels and other navigational aids, and preserving our maritime heritage.

For more information and registration: <https://illw.net/>

The history of this event can be found elsewhere on this site. The ILLW usually takes place on the 3rd full weekend in August each year and attracts over 500 lighthouse entries located in over 40 countries. It is one of the most popular international amateur radio events in existence probably because there are very few rules and it is not the usual contest type event.

# News and Forthcoming Events Planning

## Over 300 Editions of RadCom Available in RSGB Web App



The RSGB recently announced that they have added more RadCom editions to their web app. RSGB members are now able to browse through over 300 editions of RadCom magazines dating back to January 2000. Go to the web app via <https://rsgb.org/> to explore the content. You will need RSGB membership to access this content. The RSGB Book shop offers reductions on all books purchased by RSGB members



## Ham Radio Ireland 1st Anniversary After Relaunch

Ham Radio Ireland was relaunched by the Collective Communications on the 24th of January 2025. To date the Free Magazine has been downloaded over 40,000 times and its readership spans over 68 countries. To Commemorate our anniversary we will be activating the Magazine's Callsign EI3HRI at regular intervals throughout the year. Do give us a call if you hear us on the airwaves. We thank all of our authors for their support and interesting articles, We thank all of our readers for their support also,

## RSGB News Services

For your weekly fix of GB2RS, from 80m to UHF DMR. Full schedule available from [rsgb.org.uk/gb2rsschedule](https://rsgb.org.uk/gb2rsschedule).

09:30 145.5250 FM

10:00 3.6400 LSB

12:00 DMR BM TG2354

19:30 DMR Phoenix TG880

**BUNKERS ON THE AIR WORLDWIDE**

# INTERNATIONAL BUNKERFEST 2026

**BUNKERS. RADIO. HISTORY. ONE GLOBAL EVENT.**

BunkerFest 2026 is the third international WWBOTA event — amateur radio operators hunting and activation historical bunkers, throughout the WWBOTA network.

	<b>WHEN</b>	<b>24-26 JULY 2026</b> A full weekend of worldwide bunker activations.	<b>WHY TAKE PART?</b>
	<b>WHAT</b>	<b>GLOBAL BUNKER ACTIVATION EVENT</b> Amateur radio operators hunting and activation historical bunkers, throughout the WWBOTA network.	
	<b>WHO</b>	<b>OPEN TO ALL RADIO AMATEURS</b> Take part as an activator or hunter. Everyone can join!	
	<b>HOW</b>	<b>ON THE AIR THROUGH WWBOTA</b> Contacts count for awards and global recognition.	
		<b>BE PART OF A GLOBAL COMMUNITY</b> Connect with operators worldwide.	
			<b>PROMOTE HISTORY ON THE AIR</b> Shine a light on amazing bunkers and their stories.
			<b>EARN EXCLUSIVE AWARDS</b> Special certificates for activators and hunters.
			<b>SHARE YOUR ADVENTURE</b> Photos, stories and QSOs that make a difference.

**GET INVOLVED. GET ON THE AIR.**  
★ [WWW.WWBOTA.NET/BUNKERFEST26](http://WWW.WWBOTA.NET/BUNKERFEST26) ★

HISTORY ★ RADIO ★ COMMUNITY ★ WORLDWIDE



## Nervous Novices CW NET

Wednesday Evening

21.00 TUC Local Time

Listen out for CQ "NNCW"

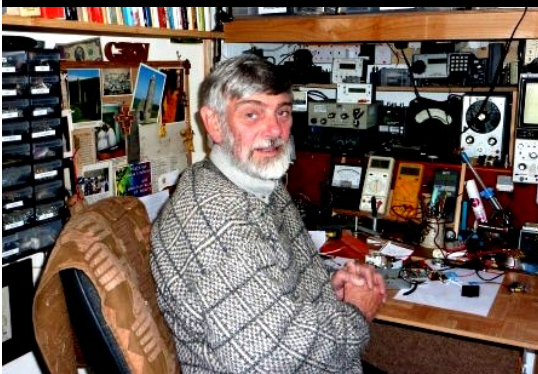
The speed is the Net is the speed of the slowest operator

Net Controller Eamo EI7LC

Freq is 7.035 +/- So call in and say hello



## G QRP CLUB



The G-QRP club was formed by Rev. George Dobbs G3RJV in 1974 to cater for those interested in low power communications after a group used to meet around 3.560MHz. In the year 2000, the club celebrated its 25th birthday and we continue growing year by year.

The club has a quarterly magazine called SPRAT, so called for Small Powered Radio Amateur Transmissions. This magazine is 2/3 full of circuit ideas and 1/3 editorial. Until his passing in 2019 it was edited by George.

It was in September 1974 that George Dobbs G3RJV started the wheels turning to make the G-QRP Club a reality. Fifty years later, the Club is going strong and we have had around four thousand paid up members for over a decade.

Membership is handled by Daphne, G7ENA, GQRP Club, 33 Swallow Drive, Louth, LN11 0DN. Subscription currently stands at €15.00 for EU members.

# News and Forthcoming Events Planning



For those of you who are into island chasing or portable operating, **GMFF** has put together a new program called the Islands of the Republic of Ireland Award (IRIA). It looks like a solid excuse to get out with the portable gear this summer or to hunt for some new references from the home shack. The program is split into two sides: **Activators:** You need to operate strictly from the land on the island (maritime mobile doesn't count) and log at least 50 QSOs for it to be a valid activation.

**Chasers:** You just need confirmed contacts with the stations that are out activating the islands. The certificates are awarded in increments of 10, running from 10 all the way up to 100 different islands. If you want to see if any of your past logs count, or if you're looking to plan a trip out to the coast soon, you can find the official reference list and the rest of the rules here: <https://gmff.uk/> Check out the site for many more new awards of interest may be found on this site.

## World CB, Ham Radio News and Updates



World CB, Ham Radio & Updates is a weekly "Vox Populi" broadcast hosted on Facebook and the Zello *Southern Ireland Radio Room*. by Dave (Delta Mike) The Broadcast commences at 9pm each Sunday evening and continues on until late. All are welcomed to call in via the Southern Ireland Radio Room and can place comment on the Facebook video broadcast. Each week there is a buy and sell for second hand equipment and this is followed by news coverage of activities and rallies both at home and abroad. Special guests from both the Ham Radio and CB fraternity feature each week discussing radio operations in their own clubs and their part of the world. In addition those on the Zello room have an opportunity to inform us of activities in their areas. Dave regularly reviews stories featured in Ham Radio Ireland and has been a supporter of Ham Radio Ireland since it was published. EI3CC regularly call in with updates on their activities and the editor of Ham Radio Ireland also joins the broadcast to answer any questions about the publication, Feel free to join us.

**The 14th Dublin Maker is on the horizon - and it will be better than ever!**

**Join us at Leopardstown Racecourse on Saturday 22nd and Sunday 23rd August 2026 for a weekend packed with creativity, invention, innovation and hands-on making.**

# News and Forthcoming Events Planning

## Friedrichshafen International Ham Radio Exhibition

As Europe's largest amateur radio exhibition, Ham Radio provides the perfect platform for radio enthusiasts from all over the world. Exhibitors and visitors gather in Friedrichshafen from over 59 countries to explore the full spectrum of the radio universe in three exhibition halls and the Foyer West. A unique aspect of HAM RADIO is the combination of commercial exhibitors, internationally networked associations, and the largest radio flea market in Europe



## EI3CC Net - 40 metres on Sundays at 15:00



### BRING ALONG YOUR SURPLUS EQUIPMENT

- Radios
- Antennas
- Receivers
- Power supplies
- SWR & power meters
- Yagi / vertical antennas
- Antenna tuners
- Hand-held radios
- Repeaters
- Cables, fittings & fixtures
- ...and much more

Place your items on a table for sale, trade or swap – it's up to you – or come along and buy items of your choice.

### TABLES ARE FREE

Book by email: [info@kildarearc.com](mailto:info@kildarearc.com)  
Reserve your table in advance

**VENUE**  
GAA Football Club  
Kill Village  
Co. Kildare  
W91 XP95

**TIME**  
Doors open: 11:00am – 1:30pm  
Traders admitted 1 hour earlier for set-up

**ENTRY**  
€5 per person at the door  
Children under 12 go free

### A NICE FUN DAY OUT FOR ALL CONCERNED

- Meet old radio friends, have a chat and enjoy the local atmosphere.
- Head into the local bar for refreshments, or enjoy the food area in the GAA clubhouse from 12:30pm onwards.
- Or just have a coffee with an operator and catch up.

### EASY ACCESS

- N7** Easy access to and from the N7 motorway via Junction 7 or Junction 8
- P** Ample parking at the clubhouse

For more details visit:  
[www.kildarearc.com](http://www.kildarearc.com)

Map link:  
<https://maps.app.goo.gl/k2sQUVYVe3XhbZ236>



## 2026 Events & Activities Planner

Official Opening EI3CC Clubhouse	19th - 21st June
Bangor & District ARS Rally	20th June
Museums on the Air	20th - 21st June
Friedrichshafen Ham Radio Exhibition	26th - 28th June
Museums on the Air	27th - 28th June
International BunkerFest	24th - 26th July
Stradbally Steam Rally	2nd - 3rd August
IRTS HamFest (Mullingar)	8th - 9th August
ILLW Lighthouses on the Air	15th - 16th August
Dublin Maker Festival	22nd - 23rd August
British Inland Waterways on the Air	29th - 31st August
G QRP Convention/Telford Ham Fest	30th - 31st August
Newark Ham Fest	25th - 26th Sept
Masonic Lodges on the Air	26th September
Railways on the air	26th - 27th Sept
JOTA Scouts on the Air	16th - 18th October
Kildare ARC Buy & Sell	18th October



## Carrickfergus Amateur Radio Group

The Club meets every Tuesday evening during normal school term time from 7pm in Elim Pentecostal Church, North Road, Carrickfergus, BT38 8ND. All visitors are welcome. Regular news and updates are provided on the CARG website <https://gi0lix.home.blog/>. It is expected that the CARG Annual Rally will take place on: Saturday 25th October 2025 in Elim Church, North Road, Carrickfergus, Co. Antrim, BT38 8ND from 11:30 am - the final date to be confirmed (I will advise of the confirmed date in advance).

CARG will participate in the annual [International Lighthouse/Lightship Weekend](#) (ILLW) on 16th & 17th August 2025 adjacent to [Chaine Memorial Tower](#), Larne, Co. Antrim (WAI: D40, IOTA: EU-115, IO74CU, ARLHS NTI-004 - see the Club website for further details).

## Bush Valley Amateur Radio Club

Meets on the last Thursday of each month at 8pm in the Burnfoot Community Centre, 294 Drumane Road, Burnfoot, BT47 4NL. We now have over 20 members, and are a very active club and we hold a number of events throughout the year. Website: [bushvalleyarc.org](http://bushvalleyarc.org)  
Enquiries to: [Bushvalleyarc@gmail.com](mailto:Bushvalleyarc@gmail.com)

## West Tyrone Amateur Radio Club

West Tyrone ARC GN4OMA, has regular monthly meetings. Our meetings take place in Order of Malta Hall, Brook Street, Omagh, BT78 1DE on the second Wednesday of every month at 7.30 pm. Enquiries to: [info@wtarc.org.uk](mailto:info@wtarc.org.uk)

## Lough Erne Amateur Radio Club

Meets at the Share Village, Smith's Strand, Linaskea, Co Fermanagh at 19:30 on the first Monday of each month. More info: <https://lougherneradioclub.co.uk>

## Mid Ulster Amateur Radio Club

The Mid Ulster Amateur Radio Club (MUARC) has been active since 1965, our Club call sign is MN0VFW. Please take time to look through our FB page where you will find information on our club, activities, events and members as well as a great gallery full of images of our latest activities. Mid-Ulster Amateur Radio Club meets on the second Sunday of the month except July/August in Tandragee Golf Club at 3pm. We organise field days for St Patricks day, Marconi weekend, 145 Alive, Sota weekend and other events. If you're in the region, and would like to take part, the club secretary can be contacted on the following email address:  
Email address: [muarc.secretary@yahoo.co.uk](mailto:muarc.secretary@yahoo.co.uk)



## Antrim and District Amateur Radio Society

The Antrim and District Amateur Radio Society meets on the 2nd Friday of each month in the Greystone Community on the Ballycraigy Road, BT41 1PW 7:30 - 9:30pm. For More information: Email [secretary@adars.co.uk](mailto:secretary@adars.co.uk)

## Ballymena Amateur Radio Club

The Club meets every Thursday night at 70 Nursery Road, Gracehill, BALLYMENA except during the summer months (June, July and August) when we only officially meet on the first Thursday night of the month, but there are some members there nearly every Thursday night. E-mail: [HKernohan@aol.com](mailto:HKernohan@aol.com)

## City of Belfast Amateur Radio Society

The City of Belfast Amateur Radio Society meets on the first Monday of each month at 8pm in the Shorts Recreation Club, Aircraft Park, Hollywood Road, Belfast BT4 1SL. Contact Paul Irwin GI6FEN for more information E-mail: [paulirwin@btinternet.com](mailto:paulirwin@btinternet.com)

## Northwest Group Amateur Radio Club

The Northwest Group Amateur Radio Club, meets last Tuesday of the month at Shantallow Community Centre, Derry. Contact [nwgarc@gmail.com](mailto:nwgarc@gmail.com)

## Bangor and District Amateur Radio Society

The Bangor and District Amateur Radio Society meets on the 2nd Tuesday of the month in the Marquis Hall, Abbey St, Bangor BT20 4JE 19:30 for 20:00. We don't meet during July and August. Facebook page: <https://www.facebook.com/BangorDistrictARS/> Contact GI4JTF for more information.

## White Mountain Amateur Radio Club

The White Mountain Amateur Radio club meets at 7a, Sheepwalk Road, Castlerobin, Lisburn on Friday nights for the Amateur Radio Exam Courses, Sundays at 12pm Wednesday nights at 7pm for general radio topics, practical and social evenings. Whether interested in Amateur Radio, CB, PMR 446 or electronics all are welcomed to come along to our meetings. More information from <https://wmarc.co.uk/>

If your Club, Group or Society is not listed here, please notify us and we will add to the next issue of Ham Radio Ireland



# Martin Lynch & Sons Ltd

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Web: [www.Hamradio.co.uk](http://www.Hamradio.co.uk) E-mail: [sales@hamradio.co.uk](mailto:sales@hamradio.co.uk)  
Opening Hours: Mon - Fri: 8.30am to 5pm. Sat: 9am to 4.30pm

EO&E

## YAESU

ML&S Officially the only Direct Factory Appointed Distributor & Repair Workshop for Yaesu Musen Products

### This month's STAR PERFORMER

Yaesu FTX-1F

ALL BAND ALL MODE PORTABLE



Another Dream Radio from Yaesu. Taking over from where the best-selling FT-818 left off.

FTX-1F (Field version): £1399.00

Comes with free SPG-1 protection guard & SCF-1 fan.

Yaesu FTX-1 Optima. 100W HF/6M 50W 4M/2M/70cm SDR Transceiver. £1899.00. Comes with a free backpack.

[HamRadio.co.uk/FTX1F](http://HamRadio.co.uk/FTX1F)



Yaesu FT710 AESS HF/6m All Mode Compact Transceiver. Perfectly sized & simple to use. £999.95

Yaesu FT710 Field (no speaker) £949.00

Both with a FREE Yaesu hat!  
NEW Yaesu FTM-510DE ASP Dual Band Mobile Transceiver. C4FM Digital/FM 55W Dual-Band Mobile Transceiver.

The New Flagship Mobile with Super-DX & ASP for Enhanced Coverage. Latest high-performance C4FM Digital/FM Dual-Band Mobile Transceiver, offering 55W VHF / 50W UHF output power and packed with cutting-edge features for superior communication. Designed to replace upon the successful FTM-500DE. £569.95

Yaesu FTM-150 ASP 55/50W 144/430MHz FM Dual Band Mobile Transceiver. Versatile dual-band mobile transceiver offering 55W on VHF and 50W on UHF. £349.99

Yaesu FT3185 ASP 85W 144MHz VHF FM Mobile Transceiver. Powerful 2m mobile transceiver, delivering an impressive 85W of reliable transmit power, selectable at 85W, 50W, 20W or 5W. £189.95

Yaesu FT3165 ASP 65W 144MHz FM Mobile Transceiver. Robust, compact 2m mobile transceiver designed to deliver powerful performance and reliability for ham radio enthusiasts. With a 65W output, users can select from three power levels (65W/30W/5W) to suit various needs. Limited Offer £150.00

Yaesu FTM-310DE ASP 144/430MHz 55W/50W C4FM Digital / FM Mobile Transceiver. Now in Stock £375.00

FTdx101D 100W HF/6m Transceiver. £3099.95  
FTdx101MP 200W HF/50MHz Transceiver £4099.99

Yaesu FTdx10 Narrow band SDR and Direct Sampling. £1299.00

Yaesu FT-891 HF/6m Base/Mobile. £649.00

20% Discount off FC-50 when bought together

Yaesu FT-991A All-Mode Transceiver. £1249.00

Yaesu FT-SD5 IPX7 Dual C4FM RX Handle. See Web for Special Offer

Yaesu FT-70DE C4FM/FM 144-430MHz Dual Band Handle. £167.95

NEW Yaesu DR-3X Repeater The Yaesu DR-3X is the latest generation of Yaesu's advanced digital and FM repeater system, designed for reliable amateur radio repeater operation with improved receiver performance, enhanced interference handling and flexible dual receive capability. Please note: This product is currently available as a £250 pre-order deposit only.



Yaesu DR-2XE C4FM Repeater. New Low Price £1059.95

Yaesu FT-65E VHF/UHF 2m/70cm Dual Band FM Handle. £84.95



Yaesu FT-4XE 5W VHF/UHF FM Portable Transceiver. £59.95  
Yaesu M-70 Desktop Microphone. £129.95



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Kenwood TS-890SE2 HF/6m Transceiver



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The new TH-D750E is the logical evolution of Kenwood's popular TH-D74E duo bander. 5W on 2/70. FM & D-Star. Built-in DigiPeeper, APRS, Wide-band all mode receive, IF Shift function, USB-C charging port & IP54/55 approved.

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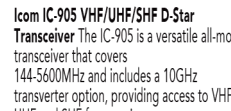
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Icom IC-718 100W HF/6W Base Transceiver. £730.00

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PTRX-7300 High quality RF interface module for the IC-7300. £220.00

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Automatic linear amplifier for all short wave amateur bands from 1.8 to 29MHz (including WARC) + 50MHz and all modes .....**£5294.00**



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This is just one example of the many available in store.  
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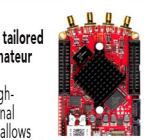


**Shack Clock Special Offer £19.99**



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**Professional-grade SDR digitiser and processing platform, tailored for serious experimenters, RF engineers, and advanced amateur radio operators.**  
The SDRlab 122-16 Internal Clock is based on Red Pitaya's high-performance SDRlab platform, modified for use with an external oscillator connected via the E2 extension port. This flexibility allows integration with GPSDOs, rubidium standards, or other precision clock sources required in demanding RF environments. ....**£695.00**



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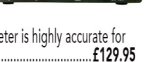
**Nissei PS305W II 30A Switching Power Supply**  
This Switching Power Supply is designed for radio amateurs; it is composed of a low ripple switching circuit which can perform like a linear power supply. It is small, light, portable, and efficient. ....**£98.95**



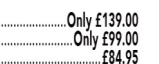
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40 Amps continuous and 45 amps surge. Illuminated dials showing Amps and Volts. ....**£154.96**



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Digital Display SWR/Power Meter. This digital SWR & Watt meter is highly accurate for measuring Forward Power, Reflected Power, & VSWR. ....**£129.95**



**DG-503Max Digital Power Meter** .....**Only £139.00**  
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Single band UHF Modem, Raspberry Pi Zero 2 (depending on availability), 2 part ZUMCase, SD Card loaded with Pi-Star ready for you to configure, use with your compatible digital radio. ....**£178.00**



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**Pro-Set Elite 6 Headphones** .....**£179.95**  
**Pro-Set Elite IC Headphones** .....**£189.95**  
**Pro-Set 3 Headphones** .....**£127.00**  
**NEW PR-77D Microphone** .....**From £159.96**  
**PR-781 Microphone** .....**From £199.95**  
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**ML&S are the official UK importer for Heil Sound headphones and microphones**

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### VGC VR-N76 APRS Handheld Radio 2m/70cm

The VGC VR-N76 is a VHF and UHF handheld radio, equipped with advanced features. With 5 watts of transmission power, app-based control, integrated Bluetooth, GPS and a built-in compass. It certainly is a feature packed analog radio. Enjoy a range of exciting and practical functions that were once exclusive to digital radios, without the steep learning curve. **Now with full KISS functionality via new firmware Via the downloadable App.**  
**Only £119.95**



### VGC VERO VR-N7600

#### 50W Dual Band Mobile Radio With APP Programming

The Vero VR-N7500 and VERO VR-N7600 are advanced dual band mobile radios designed for seamless communication and enhanced functionality. Both models offer robust performance and are ideal for amateur radio enthusiasts and professionals alike. **Only £224.95**



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### MICRO POTA EFHW 49-1 Kit with 25m of dipolex available in 50 and BNC

Discover the versatility and efficiency of the POTA EFHW 49-1 Kit, designed for amateur radio enthusiasts seeking reliable performance. This comprehensive kit includes a MICRO with two connector options, ensuring seamless connectivity and ease of use in various setups. With 25 metres of high-quality dipolex cable, this kit provides excellent flexibility and durability for outdoor operations. This kit will allow you to make a 20m EFHW. ....**£69.95**

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ML&S Portable Ham Radio Trolley Backpack .....**£99.95**  
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Designed for serious operators, the CHA FSR delivers superior performance while remaining compact and easy to transport. ....**£138.95**

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**A Next-Gen Open-Source Transceiver**  
Delivers impressive performance in a compact package. Covering 100kHz to 6GHz with transmit and receive capability, it is a versatile and open-source platform designed for serious radio experimentation.  
**£359.95. See [HamRadio.co.uk/hackrfpro](http://HamRadio.co.uk/hackrfpro)**



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### Acorn 1400S

**Solid-State 1.8-54MHz Linear Amplifier. £3339.95**  
State-of-the-art amplifier covering all amateur bands from 1.8 to 54MHz. It comes with a new Compact Touch-Screen Remote Control Unit. The proven ACORN 06AT tuner is the optimal option for use with ACORN 1400S. Both devices share the same front panel design and will look magnificent in your shack.  
ACORN 1400S amplifier is based on the latest LDMOS transistor technology. The final PA stage uses a rugged 65 V LDMOS transistor for heavy operation modes. The amplifier as standard is equipped with an Ethernet interface and thus can be remotely controlled via the Internet through the integrated Web interface.



### Acorn 500S

**500W 160m-4m 500W Linear Amplifier IN STOCK**  
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**New Acorn 1003 HF + 6m Linear Amplifier** .....**£2799.00**  
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**Acorn 1500 HF+6m Linear Amplifier** .....**£3199.95**  
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**1.5K-FA Taurus Solid-state linear amplifier** providing a solid 1.5kW of output with exceptional linearity, efficiency, and robustness. Integrated with a built-in power supply and a highly capable automatic antenna tuner. ....**£4699.95**  
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Compact, IP67 rated waterproof dual band mobile transceiver .....**£99.95**



### TYT TM-D70W

High power VHF and UHF mobile transceiver  
**£185.95**



**TYT UVL-15W** High power 2 metre and 70 centimetre handheld transceiver .....**£109.95**



## Anytone Mobile Transceivers

### AT-5555N MKII

60W SSB High Power 10m Mobile Transceiver .....**£179.95**  
**AT-588 4m Transceiver 70MHz** .....**£149.99**



**AT-6666Pro 10m Mobile Transceiver.**  
AM FM SSB 10m Radio 28-29.700MHz 80W .....**Special Price £204.95**



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**NEW SW DSP Noise Cancelling In-Line Module** Cleans up noisy signals and works with most radios and receivers .....**£169.96**

### NES10-2MK4

'New NES10-2MK4 amplified DSP noise cancelling speaker' .....**£139.95**

### Dual In-Line

Dual channel amplified DSP noise eliminating module .....**£189.95**

### DESKTOP MKII

Amplified DSP base station speaker - 10 Watts audio .....**£239.95**

**NEDSP1901-KBD** Pre-wired low level retrofit audio DSP noise cancelling module. This module replaces the popular NEDS01061-KBD that many Yaesu FT817/FT-818 users have installed over the last 18 years. ....**£129.95**

**Compact In-Line** Compact DSP noise cancelling module with improved DSP algorithm giving even better noise elimination .....**£189.95**

**ParaPro EQ20-DSP 20W Audio Enhancer** .....**£329.95**

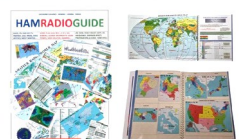
**ParaPro EQ20D-DSP 20W Audio Enhancer (Bluetooth version)** .....**£399.95**

**BHI NCH** Active noise cancelling headphones .....**£29.95**

**BHI HP-1** BHI Wired stereo communications headphones .....**£199.99**

## Ham Radio Guide Book 2025. £24.00

The **Ham Radio Guide Book 2025** is a comprehensive printed guide aimed squarely at amateur radio enthusiasts. It consolidates essential information in a full-colour, magazine-style format - covering frequency allocations, band plans, licensing tips, operational best practices, and handy reference tables. It's your year-round companion, packed with clear diagrams, FAQs, and updates relevant to the 2025 amateur radio landscape.



# FX-4CR SDR Review

After six years of SOTA activations in every kind of Irish weather imaginable, reaching Mountain Goat was a milestone I'll always treasure — especially sharing the journey with my good friend Declan Craig EI6FR.

As a personal reward, I treated myself to a second-hand FX-4CR SDR, sourced from a UK SK sale. It felt like the right way to mark the achievement: practical, meaningful, and rooted in the hobby. After several activations with the radio, I can say without hesitation I'm in love! and the FX-4CR, a 20w, all mode 80m to 6m transceiver has more than exceeded my expectations.



## First Impressions & Build Quality

My very first reaction was simply: wow.

The FX-4CR is beautifully engineered. The robust anodised electric-blue aluminium chassis on my model is not just eye-catching but clearly designed to withstand portable abuse. It feels closer to high-end laboratory equipment than a typical QRP field rig.

The screen is a standout feature. The colour display is bright, crisp, and readable even outdoors, with a vivid waterfall that provides instant situational awareness. Everything you might want — frequency, mode, bandwidth, AGC, power, voltage, SWR — is presented in a logical, uncluttered layout.

## Ergonomics & Operation in the Field

For SOTA, ease of operation matters, especially when chasing winter bonus! Cold fingers, wind, rain, and time pressure mean a radio must be intuitive and easy to use, this is where the FX-4CR really shines.

Operation became second nature within the 1st activation. The menu system is shallow and sensible, and the multi-function controls are clearly thought out. Other reviews often contrast the FX-4CR with menu-heavy legacy portables, and from a SOTA perspective that comparison is very fair. Changing filters, adjusting bandwidth, or tweaking audio is fast and obvious — no need for manual-diving on a summit.

## Receiver Performance & Filters

The receiver is excellent and this is echoed consistently across independent reviews and user reports.

- The filters are sharp and effective, making it easy to dig weak SSB signals out of crowded bands.
- Adjacent signal rejection is impressive for a QRP radio.
- On a busy weekend, the waterfall display, combined with tight DSP filtering, makes finding usable spaces much faster than on a traditional non-SDR portable.

On busy SOTA summits or during chaser pile-ups, the quick access to the filter capabilities, when the inevitable big gun station starts up 2KHz above or below you, is a game changer and has allowed me to stay on my QRG rather than having to move.

## Audio Quality (RX & TX)

The audio on headphones is superb — clean, natural, and fatigue-free no matter what the filter setting. It is one of the things I have really noticed. The speaker is not bad either but not really a runner on a windy mountain.

Several chasers have commented positively on the transmitted audio, and signal reports are now typically symmetrical. Quiet a few times I have received bigger reports than the chasing station, this was a very rare occurrence with the 6w on the FT-818ND. In fairness it's too early to tell after 4 activations with it, but I have worked DX more often too. The power output, with a 15v battery was peaking at 20-22w. This allows the FX-4CR punch well



# FX-4CR SDR Review



above its weight and certainly a noticeable difference over the 6w FT-818ND.

## Power Consumption & Portability

As an SDR, the FX-4CR the power consumption seems very reasonable compared to the FT-818 and my LiFePO<sub>4</sub> battery lasts longer which will now allow me opt for a smaller lighter battery on the hills. Overall, I will save nearly half a kilo and have much better performance and power output.

## Comparison with the FT-818ND

My FT-818ND has been a faithful companion and remains a phenomenal radio for years. It has earned its reputation the hard way and is one of the firm favourites in the SOTA community.

However, technology moves on and for SSB-focused SOTA operating, the FX-4CR offers:

- A far superior display and situational awareness
- Easier, faster filtering
- Better ergonomics in real summit conditions
- More pleasant audio
- 20w

The only thing I miss about my FT-818ND set up is the voice keyer mic from DH8BQA It was a fantastic add on to the 818, alas the FX-4CR only supports a dynamic mic so no voltage rail to power the keyer.

Even so, my FT-818ND is now relegated to No. 2 / backup SOTA rig — a testament not to any failing of the Yaesu, but to just how good the FX-4CR is.

## Final Thoughts

After a few activations, I can confidently say: I'm in love with this radio.

- Exceptional build quality
- One of the best user interfaces in a portable SDR
- Excellent receiver performance
- Particularly strong on SSB
- Ideal for portable and SOTA-style operating

The FX-4CR feels like it was designed by people who operate portable, not just engineers ticking feature boxes. For an SSB SOTA operator — especially one who values usability, receiver performance, weight/portability and audio quality — it is an outstanding choice.

This is a radio I expect to carry to many more summits, in all sorts of weather, for years to come. Yu Hongbo (BG2FX) has in my view designed and built a masterpiece. A million thank you's Yu, 3 months after my purchase I'm still grinning like a cat that got the cream. Declan is getting sick of me harping on about how good it is.

Yu Hongbo (BG2FX) if you ever get to read this review, I wonder is there any way to squeeze in a voice keyer that would just make this the most perfect SSB portable radio. As a final observation, if I could only afford one radio and an amp for shack, portable and dxpedition and field operations, this would be the radio... maybe paired with a new SPE 1.5k-FA Taurus!



**John Holland - EI3ISB**

[ei4geb01@gmail.com](mailto:ei4geb01@gmail.com)



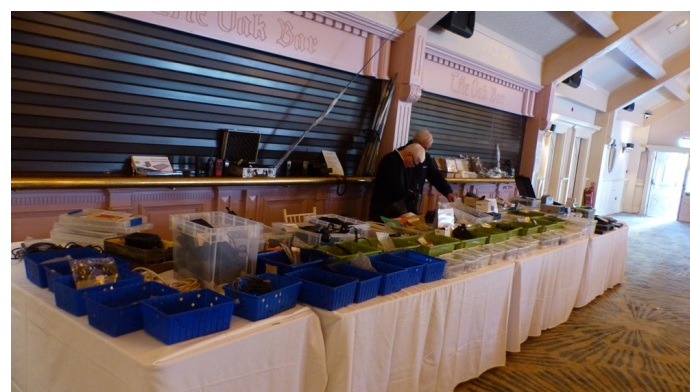
The Limerick Clare Radio club were hosting the IRTS AGM in Shannon and EI3CC headed down on Sunday morning for the rally.

Opening time was set at 10.30 so we left our QTH at 6.30am other members were on route and we would meet at the venue.

This was to be the first rally without Irelands leading Amateur radio supplier (Raymond Long) of Long Communications, Ray had served us all in the radio hobby for 37 years and he felt it was time to retire.

We at EI3CC wish him well on his retirement and was sadly missed at the rally as a number of other stalls who would follow ray were not present also.

We met up with our crew and we were guided to our tables and preceded to set up for the rally



We had asked for two tables but we soon realised we need four and we were given the two tables behind us. Sue got stuck in with the layout we had two EI3CC stands an AirMast stand and a Ham radio Ireland stand.

Steve EI5DD had copies of previous Magazines and some various HRI merchandise

Wayne had a number of his variety homebrew projects with him and these always attract a lot of attention.

Other tables were setting up next to us and we expected to be busy once the doors were open

Soon enough it was 10.30 and the room started to fill our stands would be the first tables to greet you as you

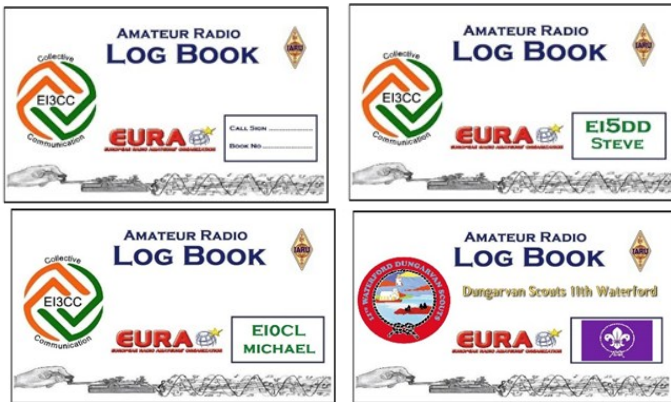
entered and from the off, we were again flat out with visitors to the stands.

The Ham radio Ireland was drawing a lot of attention and praise for its articles and Steve's production of the layout.

# Limerick Clare Amateur Radio Club Rally



We had also brought our new EI3CC Logbook and they were quickly snapped up and orders for custom covers were also placed.



Printing our own logbooks means we give you what ever cover and content layout you want at no extra cost.



Society IRTS club stands included the Mayo experimenters club and also AREN and YOTA stand too.



We also had a draw for our own raffle we were running for a Club Crystal Logo. This when offered sold out in a number of days proving very popular and all funds raised going into toe group pot the winner being Lez EI4GEB.

We will again have a raffle of similar during the year. As well as being a trade and promotion event it is also a social gathering and it was great to meet up with everyone who called to the stand as this being the last rally in Ireland (two in 2026) it would be a while before some would meet up again.



The rally concluded at lunch time and the IRTS AGM would be in the afternoon and a member only event, we had a great day out and thanks again to the limerick and Clare club for the event and let's see what 2027 brings to the radio table.



A good variety of items were on show and seemed to be a good few of full arms walking about with their treasured items just purchased.

The usual stands were represented i.e., National



## A Visit to Tramore - The Sunny Southeast

There are worse ways to spend a Sunday than taking the train to Waterford with a bike, then cycling out to Tramore in the sunshine for a day of radio by the sea.



The E13CC Radio Control Unit on Tramore Prom in the sunshine.

On Sunday, 24th May 2026, I made the trip down to visit the E13CC team during their SOS Radio Week activation in aid of the RNLI. The plan was simple enough: train from Dublin to Waterford, then about a 15 km cycle out to Tramore. With the sun out and the roads dry, it turned into a lovely spin through the sunny southeast.

The activation was taking place on Tramore Prom, alongside a busy day of motorbikes and music, with crowds out enjoying the weather, the bands, the bikes and the seaside. It was a perfect public setting for amateur radio. Radio can sometimes feel like something hidden away in shacks, but here it was right out in the open, beside the sea, with people stopping to ask questions and have a go.

The E13CC crew had their Radio Control Unit out on the prom and were doing a great job showing amateur radio to the public. There was a real buzz around the trailer all day. People were calling in, looking at the gear, asking how it all worked, and getting a chance to see the radio in action.



One of the highlights was the hands-on side of things. There was a buzzer game, Morse code practice, and plenty of demos to catch the attention of passers-by. At one stage, there was a line of people outside the trailer learning

a bit of Morse, which was great to see. It is always encouraging when a simple, practical demo gets people smiling and asking more questions.



The team also had plenty of radio equipment on display, giving visitors a chance to see that the hobby is much wider than just talking into a microphone. From HF operating to practical public demonstrations, there was plenty on show to start conversation.

Of course, the real purpose of the day was to support the RNLI through SOS Radio Week. Having amateur radio on the prom, beside the sea, in aid of such a

## A Visit to Tramore - The Sunny Southeast

worthy cause, felt very fitting. The RNLI is one of those organisations that everyone understands and respects, and the activation gave the public a chance to support them while also learning a little about our hobby.

It was also lovely to meet the EI3CC team in person. They gave me a very warm welcome, and it was clear how much work had gone into setting up the station and engaging with the public. Events like this do not happen by accident. They take planning, equipment, transport, volunteers, and, most importantly, people who are willing to talk to strangers all day about radio.



While in Tramore, I also managed to fit in a little Parks on the Air. I activated IE-0167 Tramore Dunes and Backstrand Natura 2000, operating in the sunshine not too far from the main event. It was a beautiful spot and a very enjoyable activation. There is something special about



combining radio with a bit of travel, fresh air and a good view.

On the way back, I stopped off for another POTA activation at IE-0090 Waterford Nature Park Nature Reserve. I believe the site is on reclaimed landfill, and there is a nice mound there that makes a handy operating spot. It was a good way to round out the day before getting the bike back onto the train for Dublin.



For me, the day brought together a lot of the best parts of amateur radio: public outreach, portable operating, community, a good cause and a bit of adventure. A train journey, a cycle, radio on the prom, a motorcycle gathering, live music, POTA and sunshine. You would be hard-pressed to ask for a better Sunday.

A big thank you to the EI3CC team for the welcome and for all the work they put into the RNLI activation. It was great to see amateur radio being shared so openly with the public in Tramore.

I look forward to hearing more from EI3CC on the air and, hopefully, visiting again soon.

*Jeffrey Roe - EI7IRB*

[jeffreyroe@tog.ie](mailto:jeffreyroe@tog.ie)

Kildare Amateur Radio Club

**HF Net**  
**Thursday 20:00**  
**7.121MHz or 3.690 +/- QRM**



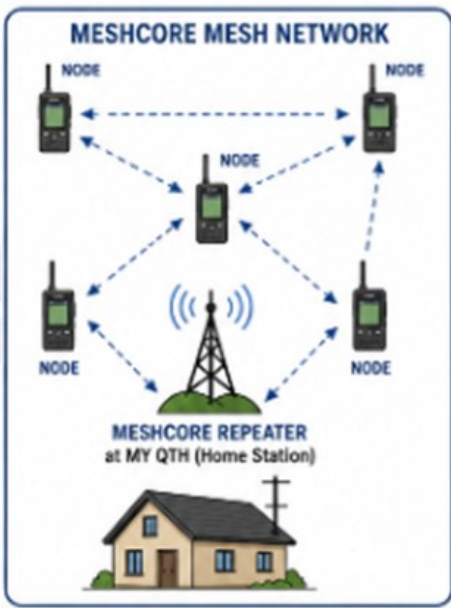
# Introduction to Meshcore



Meshtastic showed me what was possible with small LoRa devices. A few handheld units

could communicate over surprising distances, especially from good locations. For portable use, hilltop testing, events, or keeping in touch locally, it was a very useful system. However, the more I experimented with it, the more I started looking at how these networks behave when more users and nodes are added.

That led me to MeshCore.



MeshCore takes a slightly different approach. Instead of every device constantly acting as a general relay, MeshCore is built around a more controlled and efficient network structure. Dedicated repeaters can be used to extend coverage, while ordinary client devices can remain simpler and more efficient. This makes the system feel more

organised and better suited to building a proper local communications network.

In my view, this is where MeshCore improves on Meshtastic. Meshtastic is excellent for getting started and for casual LoRa messaging, but MeshCore feels more focused on creating a practical communications infrastructure. By using proper repeaters and more controlled routing, it can reduce unnecessary traffic on the network and make better use of the limited LoRa bandwidth available.

The basic idea is straightforward. A MeshCore device sends a message using LoRa radio. If the receiving station is within range, the message can be delivered directly. If it is not within direct range, the message can be passed through a MeshCore repeater. The repeater acts as a backbone station, extending the coverage area and helping messages reach stations that would otherwise be too far away.

This is very familiar thinking to anyone involved in radio. Good height, a good antenna position, and a well-placed repeater can make a major difference. The technology may be modern and digital, but the radio principles are the same: location, antenna, path, and reliability all matter.

## LilyGo handheld

For portable use, the LilyGo handheld unit is a very handy way to keep in contact. It gives the user a compact

device that can be carried around and used for short text messaging without depending on mobile networks. For outdoor activities, local events, radio club use, emergency planning, or simply experimenting with off-grid communications, it is a very practical piece of equipment.

## My MeshCore repeater

As part of my own experimentation, I have now set up a MeshCore repeater at my QTH. This gives me a fixed point for testing coverage and helps extend the MeshCore network locally. It also allows me to compare performance, range, and reliability against my earlier Meshtastic experience.



For me, MeshCore is not just another gadget. It is another step in practical radio experimentation. It combines modern digital messaging with traditional RF knowledge. It also has real potential for amateur radio experimenters, emergency communications groups, outdoor users, and anyone interested in keeping communications working when normal infrastructure is not available.

For anyone in Ireland who wants to learn more, share information, or get involved with others using the system, there is also a dedicated MeshCore Ireland group available on Facebook: MESH CORE IRELAND

<https://www.facebook.com/groups/951204907427828>

My introduction may have started with Meshtastic, but MeshCore has opened up a new area of experimentation. With a LilyGo handheld unit in the field and a MeshCore repeater running at my QTH, I now have a practical platform to test, learn from, and build on. It looks like Meshcore will take over from Meshtastic.

Lez Ferguson - EI4GEB

[ei4geb01@gmail.com](mailto:ei4geb01@gmail.com)

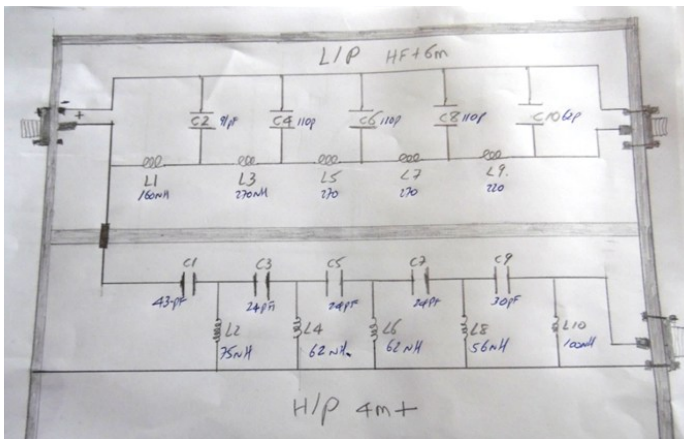
# Dual Band Wire Quad Beams and Diplexer

## DIPLEXER

The art of combining 2 Antenna's on one boom and feeding with one coax.

Greetings from the shed. This time we are covering the story of making a pair of wire Quad beams and combining on one boom to run a dual band antenna for 4 and 6 metres.

The idea is to have both antennas up at once and be on air with 4m and 6m bands switchable via building one's own diplexer. Do note that the more power you push the bigger the voltage required on the capacitors. On these bands I am running 100w and 50w and so using 2KV Capacitors.



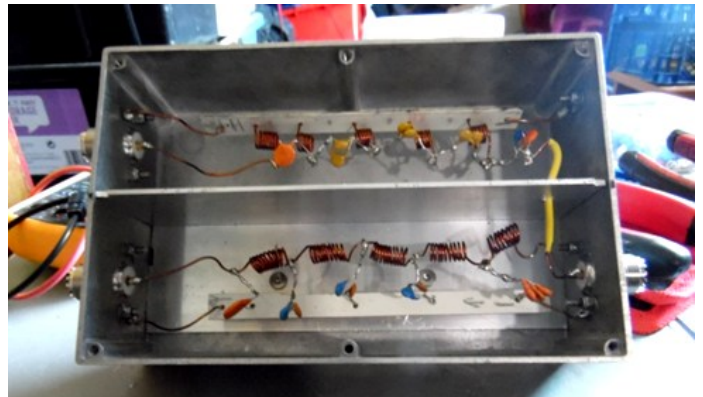
The design in including the aluminium box as the walls act part of the screen side of things as well you must put in a partition separating the High pass Filter and Low pass filter or they will mix and not work. Using a length of angle aluminium 3mm thick was perfect once cut shaped and fitted.



I used the same bolts to make the boom mounting bracket underneath the box.

Also learned to use copper faced board to function as the screen side of the filter and then made my own inductors from 0.9mm hard drawn copper wire and built

the High pass and Low pass filters and of course added the SO259 chassis sockets to ends of the box.



Making own Inductors can be fun BUT do note they must flow in same direction as each other as you wind them. Other, wise if there opposite flowing in coil, they can cancel each other out and badly effect the filtering system you want to make.

I hooked up into the aluminium box making sure I got them the right way around and right filter in right compartment. Then off to a friend who used on his oscilloscope to make sure the 4 metre high pass filter was below 70 MHz and low pass was below 60 MHz cut offs.

And next to mount both beams on the new boom and make sure the feed coax's reached the correct side of the diplexers and 4 metres and 6 metres switchable with only having to change the band on the radio between 4 metres and 6 metres. On this end I only required 1 coax from the radio to the antenna array.

The Box has been to my friends to have good look at and test on his scope to see what actually happening and a fair few tweaks were required to alter the cut off points of the High and low pass filters. The high pass filter is working a treat allowing 70 MHz to flow nicely, but the low pass needs a review and bit of rebuild as its peak cut off is about 50.350 MHz. He did try making it a tad higher but components are not quite right. So I shall review of why this happening and probably do rebuild of the Low pass side of the Diplexer. But this will allow me to use the SSB side of the band.

Time to start stripping off the elements and put onto the new marked up boom to hold both beams for 4 and 6m and get this puppy on air ready for this year's Es season.

And there she blows and it works am glad to say, testing with transmissions and SWR is good across the bands where I want it, now we await some good cons to come along.



Ready for action, the **Quad2nator**.

Karl - 2E0FEH

[freebirds658@aol.com](mailto:freebirds658@aol.com)



# International Museums Weekends

takes place over the weekends of

**20<sup>th</sup> - 21<sup>st</sup> & 27<sup>th</sup> - 28<sup>th</sup>  
June 2026**

The intention of the event is to set up amateur radio special event stations at as many of the museums as possible throughout the whole of the world.

The museums taking part over the years have included ships, castles, air museums, Napoleonic forts, pumping stations, wireless museums, racing museums and many others.

For the purposes of the event, the word 'museum' is loosely interpreted there really is no shortage of venues in which such an event can be staged, no matter where in the world you might live.

**For those clubs, individuals and museums wishing to take part,  
please register at the following web address below:-**

**[www.radio-amateur-events.org/IMW/Registration.htm](http://www.radio-amateur-events.org/IMW/Registration.htm)**

We also run a award scheme for the amateurs that like to chase the special event calls,  
Please see our website for more details

**[www.radio-amateur-events.org](http://www.radio-amateur-events.org)**



# I.R.T.S. HAMFEST 2026



AUGUST 8<sup>TH</sup> 12PM TILL AUGUST 9<sup>TH</sup> 4PM

Mullingar Showground

Cullionbeg

Mullingar

Co Westmeath

N91 HXH0

**BACK BY POPULAR DEMAND!!**

**Come along to learn or teach with the following just some of what's on display.**

**Antennas, Masts, Hex Beams, Verticals, Spider Beams, Audio settings, Digital modes, Nano vna, Rtty, FT8, Coax, Amplifiers, Feeders, Headsets, Car boot sale (Sunday), Moonbounce, CW, Vintage radios, Overnight Camping Camper vans welcome, Audio, Logging, Contesting, Soldering, and much much more!**



# Mills on The Air 2026



**The Society for the Protection of Ancient Buildings (S.P.A.B) runs a Mills Celebration event every year, on or around the second weekend in May. The Denby Dale Amateur Radio Club (Formerly Denby Dale Amateur Radio Society) have organized the Mills on the Air event since 1996.**

Mills on the Air is not run as a contest. The aim is to bring together amateur radio operators and clubs to promote the hobby, whilst helping preserve some of the wonderful heritage of our Windmills and Watermills. However, we will welcome any Tidal Mills, Treadle Mills or Horse Mills (with a wide variation of types within those!). There is a wealth of historic sites that the UK and Europe has to offer.

Windmill weekend for EI3CC is our first weekend over night stay and as usual we arrive on a Friday evening our mill is in Wexford 90km from our QTH but the journey is wonderful with plenty of great scenery.

We head off about 10am and our first port of call is the Passage East Ferry this takes us to Ballyhack which is in Wexford the sailing is merely minutes and we arrive in Ballyhack.



From Ballyhack we head to Tacumshane windmill that journey only takes about forty minutes.



The windmill at Tacumshane was built in 1846 by Nicolas Moran and was used until 1936, making it the last windmill in the Ireland to work commercially. The windmill was one of 36 such windmills dotted throughout the baronies of Forth and Bargy. Forth and Bargy had a higher concentration of windmills than other parts of Ireland, and the Tacumshane windmill is the only surviving example of its kind in the country. It was renovated in the 1950s and is the oldest working windmill in Ireland. Access is managed via the nearby pub, "The Millhouse" Bar.

Usually we set up at the base of the mill in the lovely grassed area but our mill is undergoing restoration work and so we had to settle for the corner of the carpark nearby.



## Mills on the Air 2026



Camp was set up and soon the tea was pouring. Saturday / Sunday are the main days for the mills activation so it gives us a chance on Friday to setup and get a feel for the bands and they seemed hit and miss but tomorrow was another day.

Early rise and we were improving the antenna with a bit more height, we have a Clark pump up mast on the RCU and it was decided to put up another mast from a drive on.



Wayne EI7HKB and Jorge EI5033 erected a revised antenna with better results than the night before.

The QO-100 was also up and running too and good old FT-290 pulling in signals with no trouble we our longest contacts on QO-100 South Africa and Saudi Arabia ..

I got the ball rolling on CW with a mill in France and as the day went on the log was filling quite good although now and again 40m would just drop out.

More of our members joined us from various parts of the country so the camp was filling up fast and we had



some overnighter camper vans joining us too.

Visitors from Germany getting in on the selfie frame and there was a great buzz about the camp with lots of people interested in the radio.



Being next to a pub restaurant is a great advantage and as you can imagine it was put to good use with excellent food.

Sunday on the bands proved difficult conditions were just unworkable and the waterfall on the 7300 had run dry but we had other things to occupy our minds with the hope the bands would burst back into life.



A number of antennas were built for use in POTA activations needed tuning by cutting to length so that was got underway, all the items were 3D printed by mick EIGNB and they were very compact and ideal for QRP based on a 49-1 and light weight wire.

We decided by mid afternoon we would call it a weekend we managed 31 registered mills which was not a bad result and under the conditions we had to deal with.

The trip home was the reversal of our journey up and in no time we were back at the farm storing the RCU ready for the next outing.

## Building The Radio Control Unit (RCU) Part III

Just to refresh your memories from the last episode we had spent time getting the structure sealed and secure and any repairs completed, so at this stage we could look at the next major item on the list which we dubbed the breakout.

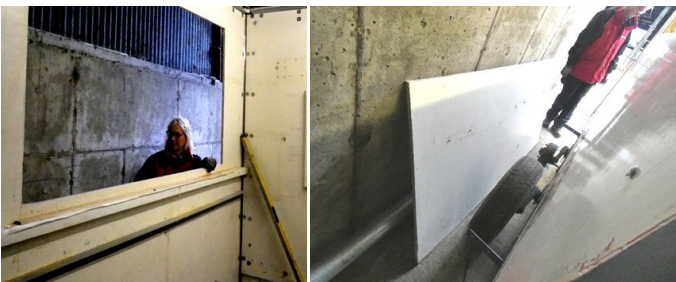
What we have at this stage is a fiberglass box on wheels with two rear doors for entry, so to make this RCU more user friendly I had a plan to open up part of one side much like the coffee hubs you see everywhere these days. This would allow the public to interact from the outside of the unit with operators who were inside on radios, it would also make people feel at ease coming into the unit as opposed to climbing into and especially these days with young people.

To get these right, measurements had to be 100% and consider that we will have an operating desk here too and that would have its own little quirks that had to be accounted for so out with the tapes and straight edges and get it marked up.



Once marked I then screwed an aluminum box tube to the unit this would guide my saw and give me a clean cut as I needed the piece, I was cutting out to be the new opening hatch.

This cut must be taken slowly as a risk of jump out from the saw can cause injury if it hits your body. The circular saw would only cut into the corners so far and then finished off with a hand saw to get the piece you have cut out of the unit.



A frame was then made up to trim the unit to take the new hatch this was folded aluminium to a Z type shape of my measurements the corners were mitered and angular pieces added to give more strength. This was bonded and installed to prevent water ingress



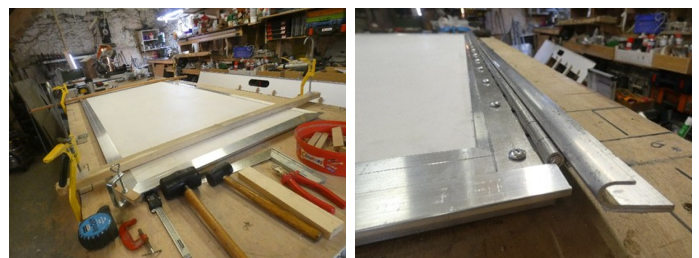
At the weekends and when ever they could group members would call my workshop and get involved with the build, painting what ever they could and help build parts to be fitted this gives a great comradery in the group and helps make them proud of there work in the project.

Mudguards were stripped and painted Sue was busy painting all the external panels to perfection while supervising all paint tasks as she was quality control.



We could build up the hatch that would be the spotlight of the build and a game changer.

Wayne EI7HKB worked for a fabrication company so was familiar with access hatches and how we could go about this in the best way to suit our needs, Sue EI1826 had painted the panel we cut out, and we were ready to trim and hinge it.



Assembly then followed after a few checks to see all was good and it fitted a treat and made the unit look absolutely stunning with its new external strip and repaint its wheel arches stripped and painted and also stone chipped.



# Building The Radio Control Unit (RCU) Part III



Now we could move on to the internals of the unit even though we had some other items to fit externally they would only work once some inside pieces were built.

I will again return to sponsorship at this point in the project we have not spent a penny everything from paint to materials has been donated from various companies and a couple of members who could see this was going to be a great asset for the group and wanted to help. Don't be afraid to seek sponsorship for your projects, you'd be surprised more so if they see potential in the group.

Back to internals and one thing I detest is wasted space so I spent hours drawing up plans for the internal layout and with that in mind one of the main areas to get right was of course the operating area, the previous bench that was in the RCU was a wide desk dimension table and for what I had in mind this was not going back.



We could use the timber so we decided to cut it into three pieces and as can be seen we had an area where cables would be concealed behind the upright face and access could if needed be thru the top piece of timber.



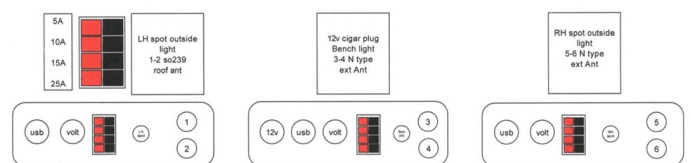
The front of the upright was also cut to take connectors and antenna points power and USB etc.

We used aluminium for each of the operating points

for the connections this was cut to size and drilled and then sanded with an orbital sander to give a stippled effect and then three coats of clear lacquer were applied. The timber itself was also painted to a high gloss finish, and we then assembled it with all fittings.



This is a drawing of the bench layout with all connector's antennas are on N-types and power via power pole.



Each panel will be wired up separately and fused should we get a short or power out it would only affect the panel in use This means we have a facility to run six radios if we needed to, and we have a visual voltage at each panel giving current power at that point.

The power pole blocks were made by Wayne E17HKB on his 3D printer and are a great item to have on the bench we also had two double socket 220V mains sockets if we were in a position where we had access to mains power.

Next part of the desk is what happens underneath it, again I hate wasted space so first thing we need is room for your legs but also room for storage and in our case a cooking area.

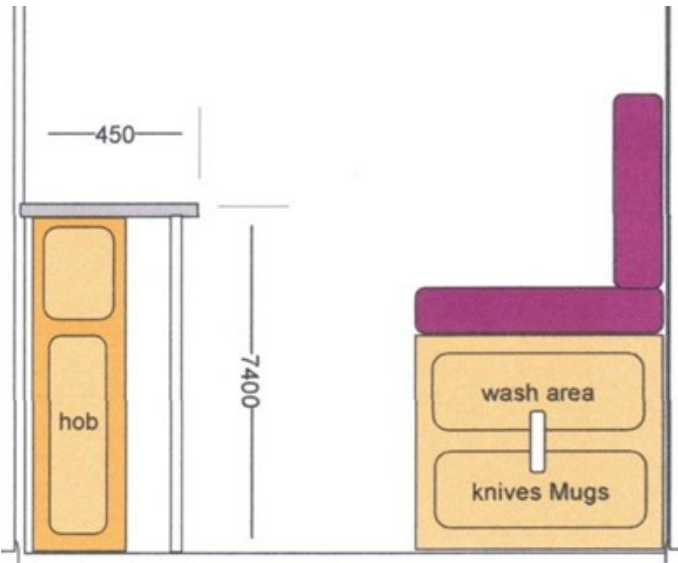


With that in mind back to my drawings and this is what I came up with the small square at the top pulls off and antenna and tubes can be stored here as it's the full length of the RCU below this would be our pull-out cooking area, and further inside three storage cupboards.

Sue and I set about the work for the underside unit

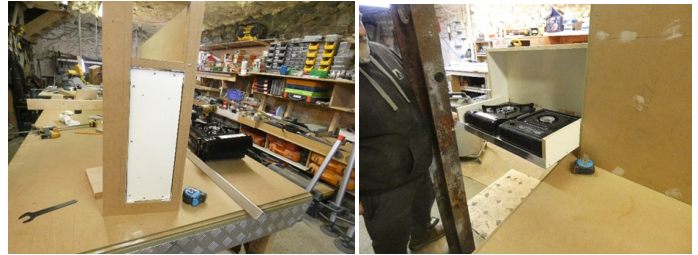
# Building The Radio Control Unit (RCU) Part III

and as always, a consideration is weight and strength, we used water resistant MDF board even the this would be painted better to be safe than sorry if water was to get in.



The cooker side of the build would give independence to any operator using the RCU in say the early hours following greyline contacts a chance to have a tea/coffee or even cook breakfast in the mornings if the group caravan was occupied by late risers.

These days the small camping cookers are ideal with disposable canisters that can be bought anywhere it seems these days, so with that in mine we got to work on the frames.



In the mean time again a local company came to our assistance with installing a lovely heavy duty grey non slip floor covering again a donation with only one clause that they could only fit it on a Sunday, so how was that for service, this floor covering was bonded to the flooring and plastic welded to the edges to give a great floor protection. Now the inside could be painted with its top coat and some items dry fitted to check our plans are working.



Out side work was also continuing on other items one being our battery box this would be mounted on the front frame and carry two leisure battery's.

Sam was bust fitting two tubes to the box one would take antenna into the battery box and the other would go into the RCU and be fitted to corresponding to connectors on the bench this would elevate any cables in the RCU.

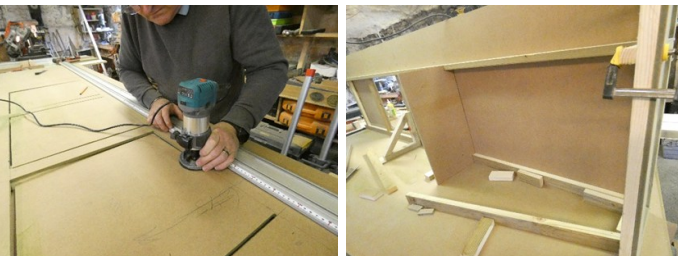


A mount would be fitted in the battery box and Ntypes connectors fitted with matching numbers to internal N-types on the bench. sue made up the mount and we located a spot where it would fit and be safe from the battery's we also fitted an isolation switch for when the unit is not in use.

The battery box was made from offcuts of similar material as the main body of the unit a fibreglass clad plywood so it looked at home when mounted in place



So there we have part 3 of the project look out for the next instalment in our magazine and you can check out our YouTube channel [Collective Communication E13CC - YouTube](#)



Routers are ideal for this type of work and they leave a razor clean edge the front face was 6mm / 1/4" MDF and this in turn was reinforced with 50 x 25mm or 2"x 1" glued and screwed also again overbuild but it's the only way for longevity.

I had some off cuts of aluminium angle that I used as rails for the cooker as this area was when not in use to be stored away by sliding into its own cupboard.



If you needed to use a cooker you would slide out this drawer which would then drop to expose two camping cookers and storing it was the reversal of opening it.

**John Tubritt- EI3HQB**  
[ei3hqb@gmail.com](mailto:ei3hqb@gmail.com)

# Dublin Maker 2026 - Radio Takes Centre Stage This August

The maker movement's biggest Irish festival returns and this year, amateur radio is front and centre. Dublin Maker is back for 2026, taking over Leopardstown Racecourse on Saturday 22nd and Sunday 23rd August, and if you haven't made the trip before, this might just be the year to change that!

Now Ireland's most established maker festival, Dublin Maker brings together engineers, hobbyists, educators, artists, and experimenters for a two-day celebration of how things work and how things are built. It's hands-on, it's interactive, and, crucially for readers of this magazine, it has a strong and growing radio presence.

## Two Clubs, One Great Weekend

This year, both Tog Hackerspace and the South Dublin Radio Club will be on the floor, and between them, they represent some of the most engaging amateur radio exhibiting at any public event in Ireland. Both clubs are festival veterans, returning after years of participation that have made them firm favourites with visitors (children and adults alike!).

Whether you're a licensed operator or someone who's never touched a rig in their life, their stands offer something genuinely valuable: live demonstrations, hands-on experimentation, and real conversations about how signals travel, how systems are built, and why amateur radio remains one of the best hobbies around.

## More Than Radio



The wider festival is well worth the visit too. Mechatronics return with their large-scale robot installations, Ulster Rocketry are bringing hardware down from the north, DIY electric vehicles will be on display, and combat robotics



will have live demonstrations running across the weekend. There's no shortage of things to spark a conversation or pull you into an unexpected rabbit hole.

*Every exhibitor at Dublin Maker is there to show, explain, and share.*



## Free Entry, All Weekend

Entry is completely free, with tickets available through Eventbrite. The event is family-friendly and open to all, making it a great opportunity to bring relatives along and show them a little bit of radio, and a lot of other things besides!

Full maker listings and updates can be found at <https://dublinmaker.ie/>

Keep an eye on our social media as the lineup continues to grow ahead of August.

**Dublin Maker 2026 - Leopardstown Racecourse, Dublin 18  
22nd - 23rd August 2026 | Free entry | [dublinmaker.ie](https://dublinmaker.ie)**

**Amy Hassett**

**[amy@dublinmaker.ie](mailto:amy@dublinmaker.ie)**

# International Marconi Day



Marconi day is held as close to Marconi's birthday as possible each year and stations obtain a special call sign to celebrate the event, our call again this year was EI3IMD.



**GUGLIELMO MARCONI**

The famous Italian inventor, whom you see above with his wife, paid his first visit to Tramore when a boy, visiting his aunt, Mrs. Cookman, who resided at the Cove for a number of years.

To be able to compete in the event your location has to have some link to Marconi weather from a transmitting point or a residence.

In our case here in Tramore in the south east of Ireland Marconi's aunt lived in our village and while not working on radio experiments on Irelands west coast he would retire to the sunny south east to recuperate.

We would be operating from the coastguard station merely down the road from his aunts residence.

later occupied by the Garda Síochána and then by the Gardaí until 1988. The station was destroyed by fire in 2000 but was restored and reopened in 2004, becoming a vital community asset for the Irish Coast Guard. The station's history includes life-saving operations, the role of a Naval Reserve base during WW1, and its significance during the War of Independence and the Civil War. The restoration process involved careful preservation of the building's architectural and historical integrity, ensuring that the station could continue to serve its community and maritime rescue needs.

As is usual with EI3CC. we have an early start and this means we are not rushing to set up our station on the day, Having our radio unit RCU as we call it means the station is ready at a moments notice and once on site a regular procedure is instigated in setting up. it is fully solar and as such no mains power is needed to operate radios.



We were activating on a Saturday and had access into the site from one of our members Garret EI7FZB who is a long serving member of the coast guard,



Once our flag is raised we are deemed to ready to operate from our spectacular site overlooking Tramore Bay.

We had a CME a few days before and it was

**EI3CC** International Marconi Day  
Tramore Coastguard Station  
**EI3IMD**  
**IO-62-KD** eircode X91 HP63

The Tramore Coastguard Station, built in 1874, was a significant landmark in the region's maritime history. Initially serving as a base for the Irish Coastguard, it was

# International Marconi Day

not helping the bands we were suffering heavy QSB and at times total band loss but never the less we persevered.

The weather was stunning and I decided it was time to launch the drone for some images for our video available on our YouTube channel.



As the morning went on members started turning up Steve EI5DD was down from Galway mick EI9GNB and Liam EI7GTB had arrived from Cork and Jorge EI5033 and his son Bruno had come down from Wicklow, this was from nearly every corner of the country and gives us on the committee good feed back that we are doing something right if members want to travel long distances to be out on our activations.

Wayne EI7HKB and Steve EI5DD set about operating the station and trying hard to make contacts under duress of terrible conditions even the Italians were complaining about the conditions which says a lot.

John EI6JOB had turned up and was interested in some items the lads had 3D printed these would be used in operating SOTA or POTA antenna and being compact in design.



Liam had also brought up his solar portable power pack in a go box and it was very impressive item.



I decided id try my special ear pieces to see if I could pick anything out of the noise on the bands but it was to no avail and made us realise, we should of taken our QO-100 Satellite system out with us.



We called it a day at about 4pm and decided to retire to our new club house as some of the members had not seen it since work was completed.



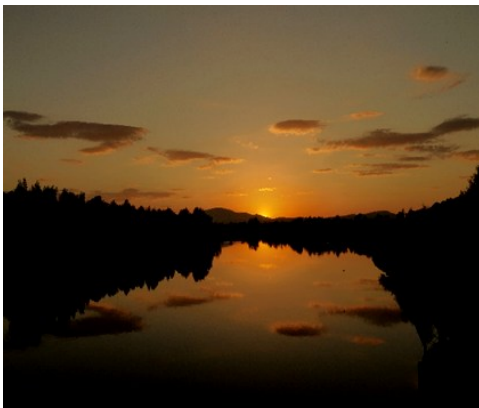
So over coffee we reminisced on our day with the Marconi station looked forward to moving in to our new clubhouse overlooking the Lake and made plans for our next outing.

# Lough Erne Radio Rally



Our first trip across the border for 2026 is a trip up to the Lough Erne Radio Rally held in the Share Discovery Village, This will be our fourth year supporting a great rally run by a great bunch of guys/gals.

The rally is a good size and plenty of gear that might catch your eye some old and some new items on offer.



Journey time for us is 5 hours with a stop so an early start again and the weather is looking good after a number of rain days.



Our route this year is via motorway to Dublin and then across to Cavan and on to the site of the rally which is the discovery camping/caravan site.

We had plenty of club projects for all to see with some of the latest of the press 3D printed reels for POTA / SOTA activations whereby the 49-1 is built into the spool and a BNC connector mounted on the side as these are for QRP

A number of our members were traveling from different locations and with good timing we all arrived within minutes of each other where we were met by members of the rally organizers waiting to carry what crates we had with us for the table.

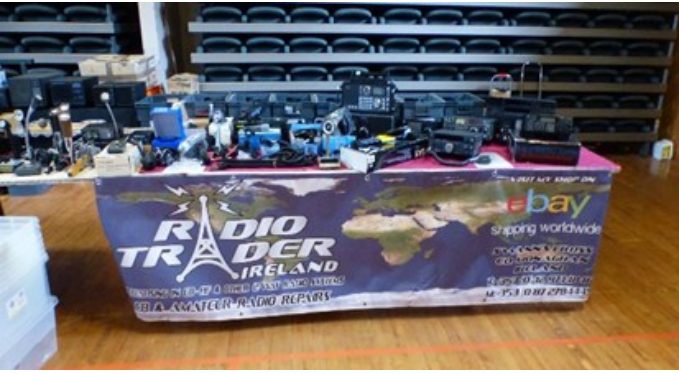


Usual Trade stands were also there but again this would be a no show for Raymond Long after having retired but in saying that there was no void on his absence.

We got about setting up our prospective tables Steve EI5DD hosting the Ham Radio Ireland magazine stand while we set up the club station stand EI3CC.

As with most rallies it is also a great social gathering and with having a broad Irish membership between north and south it's great to catch up with the members up North,

# Lough Erne Rally 2026



Once the doors opened it took no time to fill the room and our stands were kept quite busy, Steve and HRI magazine was again proving very popular and some operators offering articles for inclusion in future copies.

It was great to catch up with Gordy G100KM and the lads from the White Mountain Radio Club we went for a coffee and sandwich and had a great chat about where we



think the hobby needs to move forward for the future.

Again a great turnout for the organisers as rallies are getting harder to fill and sell items as more and more operators buy online but if you want a day out and meet up with the radio fraternity then the rallies are still a great idea.

We had lunch at the venue and later that afternoon we headed south and I crossed the threshold of the QTH at 19.45 from rising at 5am but it was worth every mile as it helps support clubs that go out of their way to give us a reason to travel.

**John Tubritt- EI3HQB**  
[ei3hqb@gmail.com](mailto:ei3hqb@gmail.com)

# Operating Portable in Australia

The great thing about The Great Outdoors is that there is an awful lot of it, and it's a shame to let it go to waste. From an Amateur Radio point of view, that means getting out of the shack and going portable. It's easy, it's fun, and it gets you out in the open air!

If you've been "chained to the shack", with a big rig and a tower, operating portable can be a breath of fresh air – literally! You'll be amazed how easy and enjoyable it is to make contacts with nothing more than a compact low-power HF transmitter (plenty of inexpensive ones coming out of China these days) and a basic antenna. Or if VHF and up is more to your taste, grab a handie-talkie, go for a walk, and have a chat, even if it's only on your local repeater. The choice is yours!

My portable "go kit" is an ICOM IC-705, a 7Ah LiFePO4 battery, and either a SOTABEAMS Band Hopper IV linked dipole for 80, 40, 30 and 20 metres or a JPC-12 40-6m vertical. Both antennas are very compact when packed, but the JPC-12 takes up less space when it's set up.



If I have the operating space I often prefer the linked dipole, as it performs better for regional contacts on 80m and 40m, when I use it for NVIS (Near Vertical Incident Skywave) communications.



## SOTA, POTA, or...?

For many Amateurs operating portable means SOTA (Summits On The Air, for the uninitiated); according to <https://www.sotadata.org.uk/en/association/EI> there are 389 "official" summits in Ireland alone. In VK2, we have over 1100 summits, but only two of them near Sydney.

If climbing hills is not your cup of tea, POTA (Parks On The Air) may suit you better. <https://pota.app/#/map> will show you the nearest "official" park. As I write this article, I realise that in Ireland, I used to live within walking distance of a POTA spot (Malahide Castle, in Dublin). In Sydney, it's a short drive to any of half-a-dozen POTA locations.

SOTA and POTA are great events, especially if you're into chasing awards, and there are many such "OTA" events: lighthouses, airfields, mills, you name it. Do an online search for "on the air" events and you'll be amazed to see the variety out there.

If none of those "special" locations are within reach, there's even an "Out On The Air" program, where all you have to do is "Leave the shack. Find the world" and make any kind of contact you like.

## Portable with Emergency Communications

But personally, I'm not into contesting or collecting awards, so I'll tell you a couple of different ways that I go portable: the first is through involvement with my local Amateur Radio emergency communications group, WICEN NSW Inc.

WICEN (Wireless Institute Civil Emergency Network), started around 1945 as a branch of the Wireless Institute of Australia, our national representative body. Think of WICEN as the Australian counterpart to AREN, RAYNET, ARES, RACES and similar organisations.



In New South Wales (VK2), WICEN NSW Inc. operates as a specialist support squad of VRA Rescue NSW, an accredited emergency service agency; this gives WICEN access to government emergency systems such as the Public Service Network (PSN).

As a WICEN member for several decades, I have used my Amateur Radio skills "in the line of duty", many times including some major natural disasters. These

## Operating Portable in Australia

involved deploying and operating radio equipment, both Amateur and non-Amateur.

In between emergency activations, WICEN supports community events by providing safety communications for event participants. These range from localised fun runs to events spread over a 100km long courses and multiple days. These provide excellent training in passing messages quickly and accurately, and operating off-grid under challenging conditions, sometimes for prolonged periods.



There is also CREST NSW (Citizens Radio Emergency Service Teams), which could be considered WICEN's CB sibling. In a recent event, the Convict 100, CREST deployed eleven cross-band repeaters to cover a 100km mountain bike course around St Albans, north of Sydney.

Both organisations have spread beyond their "traditional" bands and also use commercial allocations as the situation warrants.

Getting involved with organisations like these provides many opportunities to get out and operate portable, building our communications skills, and have a lot of fun in the process. In the event of actual emergencies we are then better prepared than the average Amateur to assist the community with supplementary communications.

These days, we take communications for granted, but they can fail even in major cities. Not too long ago, a fire in a local electricity substation took out internet services in my suburb in Sydney, and at least one mobile phone provider found their cells dying after only a couple of hours due to insufficient backup battery capacity, so the only communications I had were Amateur Radio.

Once you get outside the big cities and off the major highways, mobile phone services get very patchy, and many still rely on various HF radio services (including Amateur Radio) to stay in touch.

The cover of last month's edition of Ham Radio Ireland featured David VK2JDD conducting an RF survey over the Glow Worm Tunnel Marathon course in the Blue Mountains west of Sydney.

You can follow WICEN's community activities and emergency deployments on Facebook and on X.

### A Walk in the Park

Another way I like to go portable is to go to a local park. As well as the "official" POTA parks, Sydney is blessed with numerous parks, beaches, sports fields, and other public "green" space. If there's room to put up an antenna, it's fair game for portable operations!



Most clubs have regular nets, and while most people call in from their home shack, there's no rule that prevents anyone from operating portable.

For example the Hornsby and Districts Amateur Radio Club holds a net ("Morning Tea with HADARC") every Friday morning. A group of local Amateurs informally known as The Lawn Rangers bands together and calls in from local parks, a different one each week. After net activity is usually a visit to a local café for further socialising. You can read about one such park outing on the Manly-Warringah Radio Society blog.

### Promoting Amateur Radio

Playing radio outdoors opens opportunities for promoting the hobby of Amateur Radio: when you're operating a station in public, you'll arouse some curiosity, so make the most of it! If someone is curious enough to ask what you're doing, I find "having fun playing ham radio" works well. Many are surprised that Amateur Radio is "still a thing", or have never heard of it at all.

But if they have gone to the trouble of asking you about the hobby, they're likely to be open to hearing more about it, and you never know, they might take steps to getting licensed and joining your club. A couple of pointers to help you along the way:

# Operating Portable in Australia

if you have a leaflet about Amateur Radio and your local club, don't be shy, let them have one! If you don't have a flyer, create one: see the Ham Radio Crash Course video on YouTube, Make an Informative Ham Radio Pamphlet And Flyer for inspiration. Or look to the ARRL for inspiration. But don't just copy and paste: adapt it to guide the reader to your club.



Business cards are easy to carry at all times, and Manly-Warringah Radio Society's cards have proven effective in drawing new members to the club. While you're out in the field, leave your mark on Google Maps. See my article Guerrilla Marketing Amateur Radio

with Google Maps in Ham Radio Ireland, October 2025, pp 29-30.

## Choose your own YouTube Portable Adventure

YouTube has many more great resources to help you go portable, wherever you happen to be. Here are a few I like:

In the desert: Gaston KT7RUN aka "The Tech Prepper" (Arizona, USA)

In the forest and hills: Jason KM4ACK (Tennessee, USA)

In the subarctic - Julian OH8STN aka Survival Tech Nord (Oulu, Finland)

At the seaside - Walter K4OGO aka "Salty Walt" (Virginia, USA)

Anywhere - Simon VA7BIX aka "Ham Jazz" (British Columbia, Canada)

*Richard VK2SKY is the author of Build, Tune, Explore with OpenWebRX+. He lives in Sydney, Australia*

*Richard Murnane - VK2SKY*

[radio.vk2sky+grz@gmail.com](mailto:radio.vk2sky+grz@gmail.com)



## \*THE IC-7300 FT8 "WHY ISN'T IT TRANSMITTING?!" SURVIVAL GUIDE\*

So, you've got your Icom IC-7300, the waterfall is dancing with signals, you're ready to conquer the digital

bands, but when you hit that "Enable TX" button... absolutely nothing happens. It's like being at the pub and your friends are talking about your favourite subject but you have absolutely no voice to join the conversation. Before you start tearing your desk apart or convincing yourself the radio is cursed, here is the quick-fix guide to get you back on the air! --

### \*STEP 1: THE "IS IT PLUGGED IN?" PHASE\*

Connect your IC-7300 to your PC with a high-quality USB cable. \* **Pro Tip:** Stick to the same USB port every time. Windows is like a moody toddler; if you move the cable, it might lose its mind and reassign your COM ports, ruining your setup instantly.

### \*STEP 2: THE "TALKING TO THE RADIO" MENU\*

Press **MENU > SET > Connectors\*** and make sure the radio knows what to do: \* **USB Send:** \*\*Set to USB SEND\*\* \* **USB Mod Input:** \*\*Set to USB MOD\*\* \* **DATA OFF MOD:** \*\*Set to USB\*\* \* **USB Mod Level:** \*\*Set this between 30% and 50%\*\* (If this is set to zero, you are literally shouting into the void). \* **CI-V Baud Rate:** \*\*Set to 19200\*\* (the safe bet). \* **CI-V USB Port:** \*\*Set to Link to [REMOTE]\*\*

### \*STEP 3: THE COMPUTER AUDIO "SHOUTING AT THE DESK" CHECK\*

If you aren't transmitting, it's usually because your PC is broadcasting your FT8 beeps to your office speakers instead of the radio.

1. Right-click your **\*Speaker icon\*** > **\*Sounds > Playback\***.
2. Set **\*USB Audio CODEC\*** as your **\*Default Device\***.
3. Do the same in the **\*Recording\*** tab. 4. **Crucial:** Set the volume to about 70-80%. If you blast it to 100%, you'll just be creating a messy, distorted signal that will make other operators want to throw your signal off a cliff.

### \*STEP 4: WSJT-X SETTINGS\*

Go to **\*File > Settings > Radio\***: \* **Rig:** Icom IC-7300. \* **Serial Port:** Select the COM port for the "Silicon Labs...Bridge" (Check Device Manager if you're lost). \* **PTT Method:** CAT. \* **Mode:** USB (Don't try to use DATA—the 7300 handles this perfectly via USB). \* **Split Operation:** Rig. **\*STEP 5: THE MOMENT OF TRUTH\*** 1. Click **\*\*Test CAT\*\***—if it turns green, you've done it! 2. Click **\*\*Test PTT\*\***—your radio should transmit. (Please, for the love of all that is holy, use a dummy load or an empty frequency so you don't annoy the locals). 3. **\*ALC Check:** While transmitting, watch your ALC meter. If it's spiking high, turn down your **\*USB Mod Level\*** in the menu. You want the meter to show zero or minimal movement. If the ALC is jumping, you're overdriving the radio and creating "splatter"—the radio equivalent of being the loud, drunk guy at your local pub. --

### \*FINAL WORDS OF WISDOM:\*

If you can see the waterfall but aren't transmitting, 99% of the time it's because your sound output is set to the wrong device, or your **\*USB Mod Level\*** is set to zero. Double-check those two things before you decide to throw the radio out the window! Get it dialled in, get on the air, and I'll see you on the waterfall!

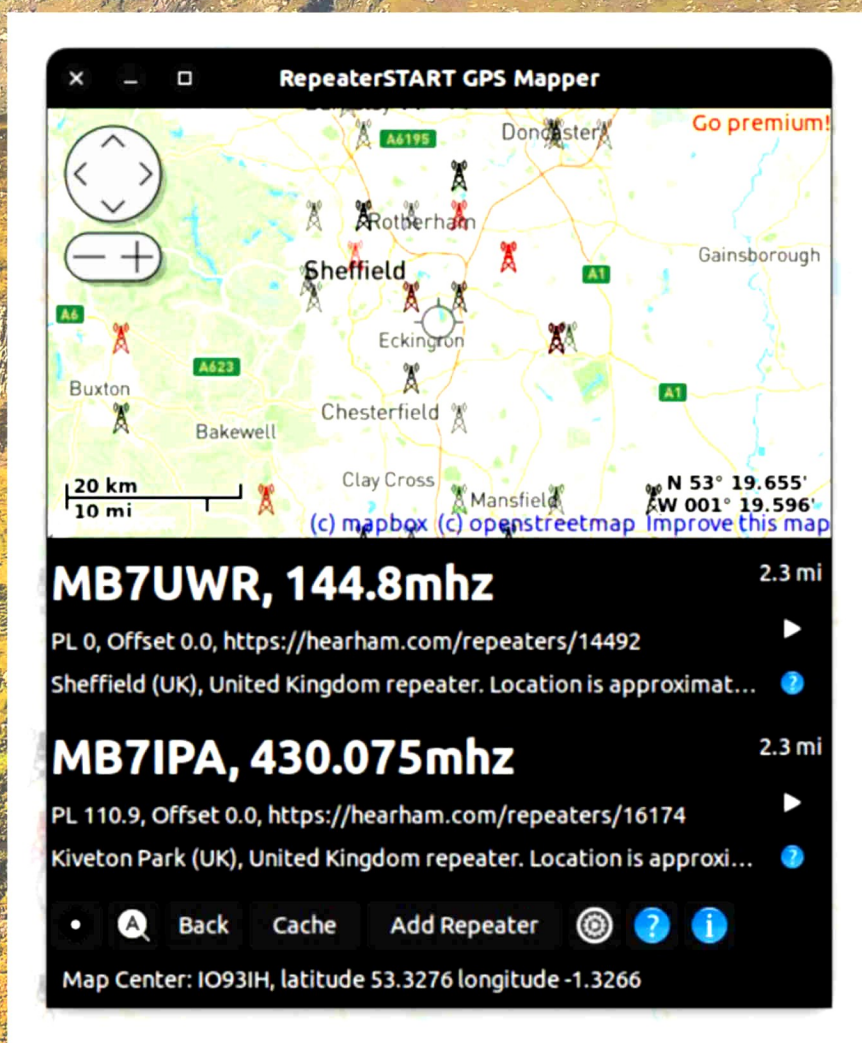
*Dale IMcWilliams - EI7HDB*

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# CB Meets BBQ Event in Bavaria Germany

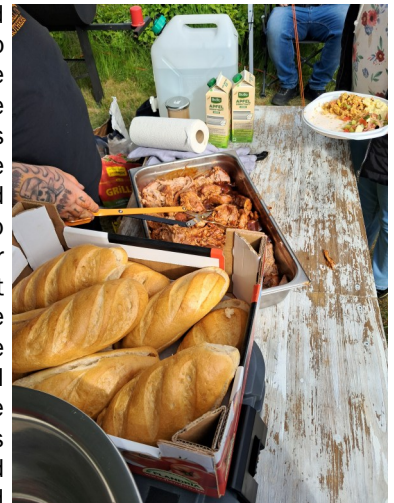
The 16<sup>th</sup> May, 2026 will be a date to remember for the 40 specially invited guests at an all time first for the German CB Funkfreunde Hassberge. Organised and 'brain' behind this event was Uwe, Prepper 14, with many helping hands who worked to build this special event. In months of preparation, including the sponsoring of many needed items that completed to make this event such a success, the product that was presented on this Saturday turned into something that has to be done again.



Three days before the event started, Uwe had a negative moment as he was transporting the needed tents and barbecue equipment to the nicknamed 'Pirate Hill'

where everything was taking place. During his trip to the hill, it had started to rain and even later, it started to hale causing a sleeted covering of the field. With temperatures falling, no-one could have thought it was possible to hold this event. The 'Hill' itself lies 400 meters above sea level and is about 6000m<sup>2</sup> big. It provides an ideal place for such an event but is also exposed to the elements.

a Bud Spencer bean sauce. The coordination of preparing and presenting had meant that Uwe was up early on Saturday to get the grills running for the pork and Dutch ovens heated up to house the beans in one and the macaroni in the other one. Other helpers had already spent the night on the 'Hill' and were up early helping to structure the event. Other helpers arrived at 11.00AM to complete the team preparing for the awaited guests. A special thanks has to be mentioned for Uwe's Steffi, who remained totally in the background but was responsible for the transporting of missing articles or buying of forgotten needed things. Without her transporting service and her energy for the many extras that she made, she contributed so much to make this event a success.



**CB RADIO MEETS BBQ**  
www.cb-hassberge.de

**13:00 COFFEE & CAKE**

- Strong freshly brewed coffee
- Homemade cakes

**16:00 BBQ TIME**

- Pulled Pork
- Pork Belly Pralines
- Bud Spencer Beans (Dutch Oven)
- Mac & Cheese (Dutch Oven)
- Coleslaw
- Potato Salad, Cucumber Salad, Greek Farmer's Salad
- Bratnurst Sandwich Rolls (Janglings Bakery)

**WHILE SUPPLIES LAST!**

**ICE-COLD DRINKS FROM THE IGLOO COOL BOXES ALL DAY LONG - ALL INCLUSIVE!**

Beer, Lemonade, Orangeade, Spezi Zero soft drinks

**THE CB RADIO FRIENDS OF HASSBERGE ARE LOOKING FORWARD TO A FANTASTIC DAY WITH YOU!**

Luck was on our side and a better weather prognose helped to lighten the awaited event. Uwe spent the Friday to prepare his cooking highlights, as did many others who made cakes and salads as further highlights for the guests. Uwe's girlfriend, Steffi, made a cheesecake and an apple pie, Sandra the wife of Martin (13KC20), made a Buttermilk

Coconut and Fanta cake and Kerstin, my girlfriend made a mandarin cake. The salads that Steffi made included two different potato salads, a Cole Slaw salad and a Greekish salad, Sandra made a Mediterranean salad and Kerstin, a Bulgur salad.

These were just the small extras to what Uwe had planned. He had prepared pulled pork, with pork belly specialities in a lovely marinate, macaroni and cheese and



At 13.00PM the event was opened with coffee and homemade cakes. Not everybody had already arrived but enough to empty the special brewed coffee machine. It was amazing to see quests arriving

after a 200-kilometre trip to take part in this event. The highlight was on CB but we also had many Ham operators, like from the local German radio club (DARC) B37 and it was great to see the interactions between CB and Ham operators, especially at the night time gathering of operators around the fire which completed this feeling of being together enjoying this hobby.

By 16.00PM we had almost all the quests arrived. Some had even planned to stay overnight in their caravans

# CB meets BBQ in Event Bavaria Germany



or mobile homes. This was the starting time for Uwe to present his prepared grilling. With bread rolls and pulled pork, mixed with coleslaw salad, a dream to eat. The pork bellies, a highlight to taste. Everybody seemed to be happy with what was served and through the help of Benny (Benny 01) with his market shouting for chips that he had made on the gas driven deep fryer, it rounded of those who still had room for food. Drinks to help wash the food down had been bought the previous days and specially cooled in boxes containing ice. Such details helped to complete this well organised event.



Slowly the temperatures fell and a couple of guests started their return trip to their homes. The early evening hours was warmed by a gathering around an open fire, giving the opportunity for discussions of technical things to do with the hobby or just normal discussions. The whole day was interesting seeing antennas being put up or even seeing transceivers in action. Even the conversation between the drones operators, who provided beautiful pictures from above, was interesting to hear. It was a pleasure to meet so many that one knew of but never had meet, to put it in writing, to see the one behind the voice.



The event did



not just end on Saturday, the Sunday was the day to remove the tents and barbeque equipment that was still on Pirate Hill. It was the planned helping hands and the extra help from those who had stayed overnight who made it possible to have everything removed before 12.00AM.

Again, a thank you to Benny (Benny 01), Marcus (Kilo Mike) and others who gave their help to clean up and empty the hill. Also, those who cleaned the equipment and helped to store it should also not be forgotten.



With so many feedback and positive reactions, Uwe has already started to prepare for a new event for next year. CB meets Barbeque 2,0 is the next event, planned with more people and a better structure to make sure it runs even better as it did this year. It will be something to look forward to and hopefully may help to

give a special touch to this hobby.

**Marten Toonder- 13LR029, 13EC39**  
[martentoonder67@gmail.com](mailto:martentoonder67@gmail.com)

# SOS Radio Week



Every year EI3CC get involved in the RNLI SOS week, this is to help raise money for our voluntary sea rescue crew who risk their lives to save others.

We run our activation in Tramore by setting up a station and display of kid's electronic kits, this gives family's a reason to call to our stand with the children interacting with the kits.

We deliberately run our activation on this weekend as Tramore also has a Motor Bike Gathering with a stage and band so public footfall is very good and a great way to raise money for the RNLI.

So, rise and shine on site early as the weather is to be fantastic sunshine or the crowds will come to Tramore a being Ireland's premier seaside town.

gazeebos and tables where we display some of the kits that the children can experiment with.



The local lifeboat guys in turn arrive with the reserve inshore boat to have on display and also, they have collection buckets and a credit card machine as most people are now cashless.

Lee EI7ITB is a crew member of the Tramore RNLI and he was happy sitting in the sun collecting and answering any questions people had and allowing them to examine the equipment



We have our RCU - radio control unit so setting up the radio side is fairly standard procedure we are fortunate

to have our own set of keys to the height barriers so access to restricted parking spots is not an issue.

We then set about setting up our



The crowds were building and the carpark was filling to bursting point, we also set up our QO-100 satellite



# SOS Radio Week

station in the event the bands may not be working this has been a great inclusion to the group as we are always guaranteed contacts no matter what RF is doing.



Jeffery had also brought his own radio equipment and had a chance to activate a POTA station while at the seaside.



Now we are ready for a busy day and with a few tubes of sunblock smothered on us we had our first visitors wanting to compete with their friends on the wire loop game, the object is to get from one side to the other without touching the sides and causing the beeper to scream.

We were also very busy in the RCU where we had the radio set up and a CW oscillator, the CW has always been a great attraction with the crowds we encourage them to send their own name in CW and with a bit of effort most complete that task to the delight of the parents. This was one of the reasons that I suggested we cut open the front of the RCU as it is a better way of interacting with the children and parents while doing demonstrations.

Every Sunday we run the EI3CC net on 40m with Dale EI7HDB in the hot seat and this Sunday it would be run from the promenade. Bands seemed good and in no time, he was working pileups from both EI G GM GW etc.

At the other end of the promenade, the Bike Fest was in full swing with some stunning machines on display and cruising up the sea front.



Jeffery, EI7IRB, the new IRTS President, had travelled down from Dublin via train to Waterford and then cycled out to Tramore to visit the group. We were indeed honoured to meet Jeffery as he had only just assumed his presidency a few weeks prior our event.

And so we had carried out another worthy activation for the RNLI and looking forward to 2027 RNLI SOS Tramore had blessed us with fantastic weather and views of this stunning town.

Jeffery seemed very impressed with our set up and at how we interacted with the public and explained our hobby and how to go about acquiring a licence.

Maybe this has inspired your club to get involved in local voluntary people out there who give up their time and in some cases lives, so get out and show that your community and radio club cares about you too.

*John Tubritt- EI3HQB*

# NVIS Operation

**N**ear Vertical Incidence Sky-wave, NVIS, is a propagation mode that utilises high angle radiation to send a signal vertically upwards to be reflected back to earth via the ionosphere for effective short to medium range communications. The antenna has to be designed to radiate signals vertically and the frequency chosen approximately 10% below the Critical Frequency to facilitate reliable Omni-directional communications over a radius of 200 miles at most. This mode of operation makes NVIS ideal for National and Localised communication during disasters or other emergency situations.

## Using NVIS Successfully

To achieve a reliable communications path in a circle of 200 miles one has to be able to radiate a signal, from the antenna at a typical angle of 60 - 90 degrees. This will fill in the skip or dead zone where the ground wave reception ceases to the point where sky-wave returns to earth. Fig. 1

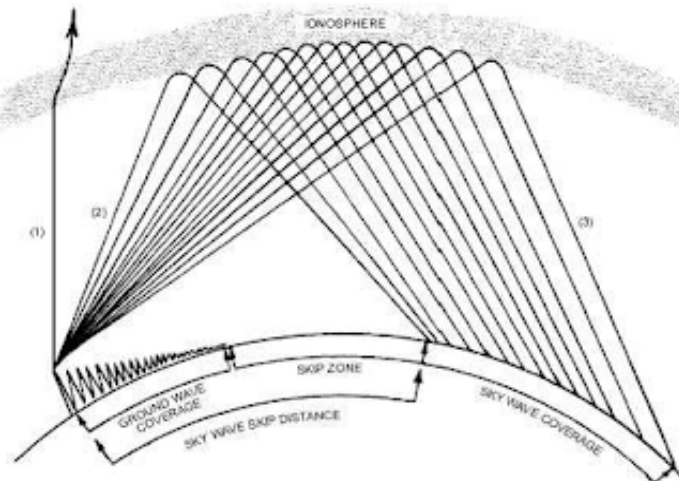


Fig.1 Propagation of Radio Waves

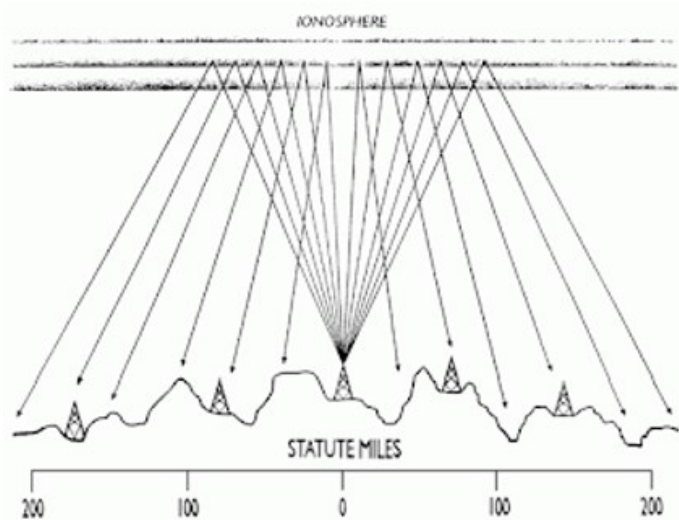


Fig. 2 NVIS Propagation

Fig.2 shows the ideal propagation of the radio signal for NVIS operation. To achieve a near-vertical radiation from the antenna it is necessary to locate the antenna  $< 1/4$ , at the frequency in use, above ground.

## Choice of Frequency:

During the daytime, 40 metres is the highest frequency band used, by afternoon and evening a middle band such as 60 metres, and a lower frequency such as 80 metres would be used at night. 160 metres could be used in the winter months during the night. The Critical Frequency,  $F_o$ , is the key to the successful operation of NVIS. Ideally, a frequency of 10% than the Critical Frequency should be used. The Ionogram can be checked for a suitable choice of Frequency. The  $F_oF_2$  should be noted.

## Choice of Antenna

The antenna can be a dipole, an Inverted Vee, a loop, or a pair of phased dipoles (Shirley Antenna) located at no more than  $1/4$  wavelength above ground. Better again try the a loop antenna. All of the above will work well and can be enhanced with a counterpoise of 5% longer placed beneath them if the earth conductivity is poor.

## Portable Operation

All of the antennas previously be used may be used in the field. Another rapidly deployable portable antenna would be a slanted 8-metre fibreglass pole attached to the back of the vehicle. 33ft of wire is wrapped along the length of the pole and fed at the bottom via an ATU. A set of counterpoise wires, 5% longer than a  $1/4$  wavelength of the frequency in use, can be located beneath the antenna. Good reports have been reported with this arrangement.

## Mobile Operation

A resonant antenna drawn diagonally across the roof of the vehicle, as seen in Military usage, will give good results. There are Commercial Loop antennas available that use the roof rack as a ground plane. These are quite expensive and not generally used by Amateurs.

Many years ago, I set up a 40m Loop Antenna, approximately 18 - 20ft above ground, in the back Garden. The total circumference of the loop was 141 ft 3 ins /43.13m. This was arranged in rectangle and fed in one corner with 300-ohm ribbon feeder and tuned with a KW EZ Match or a MFJ ATU. Coverage of Ireland and the UK was excellent even using just 5 watts from an FT 817.

## In conclusion

NVIS will cover the area which is normally located within the dead or Skip Zone. NVIS antennas are easy to erect by one person. The path to the Ionosphere is short and direct, resulting in lower path losses due to factors such as D-Layer absorption. Low lying areas and valleys are easily reached using NVIS Propagation. NVIS requires no infrastructure such as repeaters or satellites. Two stations employing NVIS can establish reliable communication without the support of a third party.

R.F. Byrnes



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# Mayo VHF Group



On March 1<sup>st</sup> 2026 Joe EI3IX activated Nephin SOTA Ref: EI/IW-002 on 50MHz, 70MHz, 145MHz (FM/C4FM), mhz (FM/C4FM) 1296MHz and in doing so passed the 1000 point mark to achieve the Mountain Goat title, the 8<sup>th</sup> to do so in EI.

On the 11<sup>th</sup> March 2026 he reached 1000 pts on 145mhz, only the 2<sup>nd</sup> in EI. Next is Goat status on 433mhz, this should be reached by early 2027.



Congratulations to John EI7FAB who won the IRTS Dermot Cowley EI2AK Memorial Cup for the 1296mhz VHF Field Day Restricted Section in 2025 for a record equalling 7th time.



Joe Worked EI2JHB/P, EI5MO/P, EI5LH.M, EI6IYB/P, EI7PB EI8JJB/M, EI8EU, EI6GYB, EJ8HJ, EI9JA, EI6FR/M and EI3GYB.

A productive day out with 12 in the log. Two showers of rain with a hail shower before I finally went QRT.

Thanks to everyone in the log - EI3IX

**433 Alive activation** held on the 23<sup>rd</sup> May 2026. This event is based on the successful 145 Alive model but without assigned frequencies.

I was located on Slieve Carn (I053LU) (WAI grid M28) calling on 433.500mhz. Using an Icom IC 9700, with 50w into Diamond X200.

In the log were EI3GYB, EI7FAB, EI2MRG, EI2JHB/M, EI5MO/M and EI5LH/M. Also worked EI3GYB and EI7FAB on 432.200mhz ssb.

Day was ry and warm 16° C but very windy on the summit.

Tried a bit of 144mhz FT8 afterwards using my mobile setup, FT817, 8" tablet using FT8CN software and 5w. Nothing heard or seen on the waterfall.

Thanks to all in the log EI3IX



433 Alive 23<sup>rd</sup> May 2026 -Mobile FT8 setup



Nephin EI/IW-002 trig point



John also won the IRTS Slievenamon Shield for the 432mhz VHF Field Day Restricted Section in 2025 for a 2nd time.



Nephin EI/IW-002 trig point



The Trophies were presented at the IRTS April AGM in 2026.

**145 Alive activation** took place on the 18<sup>th</sup> April 2026. Operated from **Slieve Carn** (I053LU) (WAI grid M28) on the assigned frequency of 145.325mhz using an Icom IC-7400 with 50w into a Diamond X200 dual band vertical.



SOTA Goat Award



# Mayo VHF Group



*433 Alive 23rd May 2026 – Mobile FT8 setup*

1296 Alive was activated today 30th May 2026 from Slieve Carn (IO53LU) WAI M28.

My setup was an SG Labs TXVR, 2w into a 32 element Yagi constructed by EI9KP on the vertical. Yaesu VX7 used to drive the transverter.

In the 1296mhz log were EI7FAB, EI1GHZ, EI9JA, EI7MRE, EI2JHB, EI5MO, EI6GYB/P and EI7IX.

Excellent signals all round, summit conditions were cloudy with a fine mist.

Great turnout for the event, thanks to everyone.

Also worked EI3GYB, EI6GYB/P and EI7IX on 145MHz FM.

EI6GYB/P also worked on 145MHz/438MHz DMR.

Thanks to all in the log EI3IX



*1296 Alive 30th May 2026 – 32 el Yagi*



*1296 Alive 30th Mayo 2026 – SG Labs TXVR*

1296 Alive was activated today 30th May 2026 from Slieve Carn (IO53LU) WAI M28.

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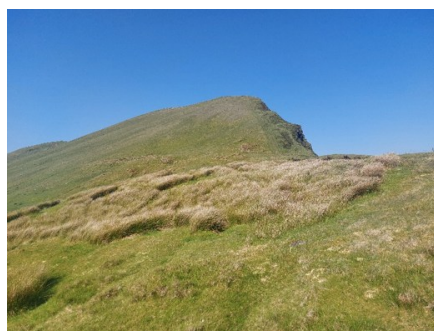
EI6GYB/P also worked on 145MHz/438MHz DMR.



*Leaving Clare Island*



*Yaesu FT-817 used for 40m/20m HF*



*Final push up the steep incline to the summit of Knockmore EI/1W-036*



*Knockmore summit on Clare Island*

Thanks to all in the log EI3IX

This Island activation was the first of many planned for this coming year, other activations will include Blasket Islands Co. Kerry, Inishturk Co. Mayo, Inishkea South Co. Mayo, Arranmore Co. Donegal & Inishbiggle Co. Mayo and possibly a few more along the way. A number of these islands have a SOTA so the plan is activating from HF right up to the microwave bands including Digital Voice DMR/C4FM.

Our weekly UHF Net continues every Wednesday night on 433.525mhz starting at 21:00hrs local.

Once the weather finally picks up it's hoped to activate a number of the EIRE WW2 signs around the County, further information on these historic markers can be found at



*Joe Fadden - EI3IX*

[joe\\_fadden@yahoo.com](mailto:joe_fadden@yahoo.com)

## Or the various methods of sending CW...

**M**ost people, particular amongst the ham community, are familiar with CW; or perhaps Morse code as those outside the hobby may know it as – the (awesome) method of communicating with others through the medium of dits and dahs. Note I will refer to it just as 'code' also.

What may be less well known is the number of different ways those dits and dahs can be crafted by the operator so the purpose of this article is to introduce those various ways of 'sending' (as we CW operators call it).

The 'thing' that the operator uses to send CW is generally called the key or paddle. Without wishing to start a huge debate, in my view at least, anything that sends CW can be called a key and a paddle is a specific type of key. I will refer to keys more than paddles and it will become clear what I consider to be paddles.

It's just a switch...

At its simplest, a key is simply a switch so anything that can be used to make and break an electrical circuit can be used as a key. I have seen people use just a pair of bare wires, a drink can, a simple push button etc as a key. However, for consistency and pleasure of sending a 'proper' key is usually much nicer to use.

However, even a nice key is just making and breaking a circuit and is just a fancy, really well made switch.

Manual or automatic?

What exactly that switch does depends on the type of key. A manual key is a pure switch, as long as it is held closed a long continuous CW tone will be sent. To craft the dits and dahs the operator has to perfect the timing of each dit and dah as well as the overall character and word. The theoretical perfect timing for CW should be 3:1. A dah should be 3 times the length of a dit, the spacing between characters within the same word should be equal to 1 dit and the space between words, 3 dits (or 1 dah).

This means to send CW at a faster or slower speed the operator has to vary their timing accordingly. It also means that sending code much above 18-20wpm is a challenge although there are operators that can send manually at 25-30wpm.

Depending on the type of manual key also, sending nice, well-formed and readable code can be really quite difficult. And if I am honest, there is some horrid sounding code out there!

Given the arm movement needed when using a traditional straight key, depending on the exact set up and how the operator holds the key etc, over the years some operators have suffered from repetitive strain injury too; known in the CW world as 'glass arm'.

As electronics have advanced and in an effort to negate the difficulties with timing, being able to send code at speeds above 20wpm and to avoid the RSI issue, electronic keyers have been developed. Whilst the key, or paddle as such 'switches' are commonly known, still just make or break an electrical circuit, if you push and hold a paddle one way (usually with the finger) instead of a continuous tone you get a string of dahs. Push and hold it the other way (usually with the thumb) you get a string of dits.

To form the characters you therefore push and hold the thumb or finger in to create the desired number of dits and dahs to form each character and the electronics largely take care of the timing. The operator sets the speed of the keyer as desired so working at speeds of up to 30wpm is realistic for most given a bit of practice (copying at those speeds is a different story!) and really good operators can hit 60wpm before pure mechanical limitations start to come into play.

Note the operator is still responsible for the timing between characters and words and it is still perfectly possible to send really horrid code even with the aid of electronics helping with the dit and dah timing!

Or do you prefer a semi?

There is an in-between type of key; the semi-automatic 'bug'. First developed in the early 1900's in an attempt to solve the problems described above with straight key sending and particularly to increase the speed at which people could send as commercial telegraphic communications began to take off, the operator still has to manually time the dahs but can push and hold the dit side to create a stream of dits.

More on this to follow...

### Manual keys

#### The Straight



This is perhaps the most recognisable key and particularly if you are speaking to someone from outside the hobby, this is what they will probably visualise. Sometimes known as a pump key (as you pump it up and down), this is the classic method of sending and essentially unchanged from the very earliest days of telegraphic Morse communications.

There is a certain pleasure to learning to use one and to slowly work towards sending really nice, well-formed code. They come in all manner of sizes and the number of adjustments varies depending on the exact design. The one pictured is a W1SFR Titan Straight and is unusual as it uses a torsion bar spring so the only adjustment is the gap spacing and this in turn varies the tension.

It is interesting to note that, due to the fact that achieving perfect 3:1 timing is very difficult, most operators

## How Many Ways to Skin a Cat?

have a unique timing and this is known as their fist – a CW term most hams will recognise but may not know the origin. Indeed so unique is an operator's fist, during WWII the ladies and gentlemen intercepting the German signals could recognise the various German operators just from their sending.

### The Horizontal Straight

A derivative of the straight key, as the name suggests, it is a straight key turned on its side. It thus takes on the appearance more of a paddle however only makes contact in one direction and is a fully manual way of sending. It was developed to help alleviate the symptoms of glass arm.



### The Cootie



The cootie is a really interesting manual key. It looks very much like a single lever paddle (indeed it is usually possible to wire one up as a paddle and vice versa – the Begali HST even has a switch on it to swap between the two modes) however it tends to have a bit more flex and a wider gap spacing.

The way the dits and dahs are formed are where the main difference is though. It is fully manual so hold it down one way or the other and you get a continuous tone just as you do with a straight key however you swing it back and forth like a paddle or bug.

Unlike a paddle or bug though, both the thumb and finger create both dits and dahs and the movement is left right left right regardless of whether it is a dit or dah next.

It is a difficult method to learn due to the timing that needs to be learned however get it right and it is a lovely way to send. You can also get quite some speed up; a good operator can send in excess of 25wpm on one.

It is also perhaps the easiest to send really nasty, hard to copy and unreadable code on! If you are thinking of learning CW then don't start with a cootie. Do try and learn one later in your journey though!

One particularly nice thing about a cootie is it's easy to make one that is pleasurable to send on. A hacksaw blade has just the right flex to it for example and pictured is one I made out of Meccano or the Mec-Key-No as I have named it. Also pictured is my W1SFR Fat Boy Cootie Paddle. Perhaps my favourite key and the first one I ever bought. I learned CW on this with it set up as a single lever paddle.

### Automatic Keys

#### Single Lever Paddle



As described above a cootie and single lever paddle are essentially the same design; that is you have a single arm that swings left and right, however the way the dits and dahs are formed are very different. As I explained in the description of automatic paddles, if you press and hold with your finger (for a paddle wired up in the conventional manner and note you don't have to do it this way, just most people do) you will get a string of dahs for as long as you keep the arm held.

If you press and hold with your thumb you get a stream of dits.

So, to key a Y for example (dadidadah) you would press with your finger for one dah, swing back with your thumb for one dit and then swing again with your finger and hold the arm for two dahs. All this as one seamless movement back and forth.

Some traditionalists shun paddles as artificial somehow, however being able to send really nice code on a paddle is very satisfying and, as discussed previously, you can send code to very high speeds with practice and this is huge fun to do. Having a conversation in CW at 25-30wpm takes some mental effort at first but you can have a proper ragchew and chat about most anything. You can have a proper natter about all manner of things in a 30 minute QSO at those speeds.

Because you can only send dits or dahs too (as you can only swing the arm one way or the other), learning on a single lever paddle is straightforward and takes some of the mental load away.

There is some debate as to whether a dual lever is quicker however I am yet to be convinced that one is better than the other here.

The picture is of my Vibroplex Vibrokey which was gifted to me by a student and therefore holds a special place on my desk.

#### Dual Lever Paddle

Sometimes referred to as an iambic paddle for reasons that will become clear, the dual lever paddle is

## How Many Ways to Skin a Cat?

similar to a single lever paddle and the keying action is notionally the same. However, instead of swinging a single arm left and right, a dual lever paddle has err... two arms and the finger swings one arm and the thumb the other.



So for what reason would you want to be able to do this? Well, with a dual lever paddle you can squeeze the two arms together. If you do this and hold the arms together, you will get a stream of dits and dahs or dahs and dits depending which side makes contact first.

So to key a C (dadidadit) you simply(?) squeeze the two arms together making sure the dit side (thumb) makes contact first and hold. The keyer will then send dadidadit and which point you let go.

To key a Y (daditdadah) you squeeze together making sure the dah (finger) makes contact first and hold for the dah and dit to form. You then let go of the dit (thumb) whilst continuing to hold the dah (finger) in for the remaining dahs. It is a little easier to do than to describe.

This is called iambic keying and the advantage is that it requires fewer hand movements which may be less fatiguing, particularly during long QSOs. The jury is out as to how beneficial this is and some people (myself included) are sceptical as to whether it is worth the effort of learning for the gains it is supposed to give. Other people swear by it though and ultimately, it is down to preference and if you want to learn iambic keying then go for it.

There are a few different iambic modes, mainly A and B however I won't go into the differences here and it is down to how the subsequent dits and dahs are timed. When I do key iambically I prefer A and note the timing can have an effect even with a single lever paddle so it's worth experimenting.

Pictured is my CW Morse Aluminium portable dual lever paddle.

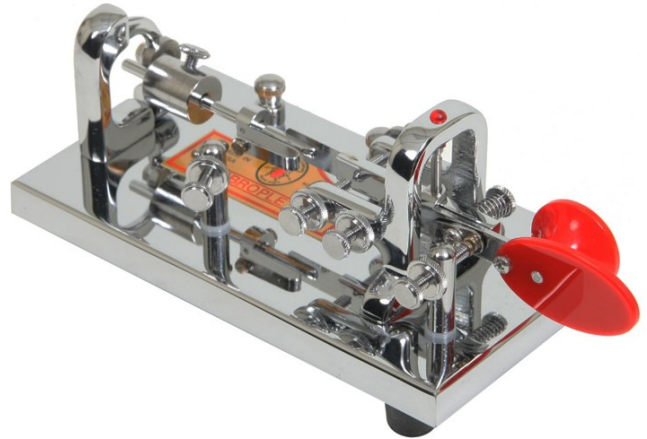
### Semi-automatic keys

#### The Bug

The first really successful bug was developed by Vibroplex and first sold in 1905 and its design is largely unchanged to this day. As discussed above, it is known as a semi-automatic as, like a horizontal straight or cootie, the dahs are manually sent however strings of dits are sent automatically. However, unlike a paddle, the dits are sent mechanically using a pendulum. They are mechanical works of art and just a beautiful example of Victorian era engineering solving a problem.

There are other manufacturers however until

recently, they all followed essentially the same design as the Vibroplex. Much more recently, the renowned Italian key maker, Begali, introduced the Intrepid and whilst it still uses a pendulum to form the dits, all the adjustments are magnetic making for a very different keying experience to a Vibroplex.



I am lucky enough to own both and would not want to give either up. The Vibroplex is, as I say, a masterpiece of pure mechanical engineering, the Begali a lovely and supremely well-made modern interpretation.

To send say an X (dadidadah) then, you hold the dah side (finger) for just long enough to form a tone of the required length (notionally 3 dits), then swing across to the dits (thumb) and hold it for two dits and then back across to the dah.

If you are used to a paddle or indeed cootie then it takes some getting used to as it is similar to both but so different at the same time. Again, like a cootie though – get it right and it's just lovely to send for long periods of time and really get into the er... swing of it. Very satisfying indeed.

Pictured are both my Vibroplex Deluxe and Begali Intrepid.

#### Where to start?

If you are just setting out on your journey to learn CW and can't decide which key to start with then I would recommend either the traditional straight key or a paddle. There is much debate as to whether you should learn on a straight key with various arguments put forward about learning timing and muscle memory.

On the other hand CWops teach using a paddle and it is how I learned and I moved across to manual keys with no issues and there are very valid reasons for taking this route also.

#### Definitely don't start with a bug or cootie

Most importantly I would just get down and learn CW one way or the other...

**Danny G3EEC CWops #3376, FISTS #2215%,  
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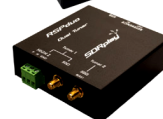
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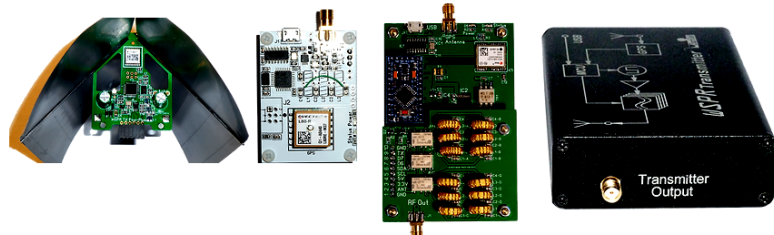
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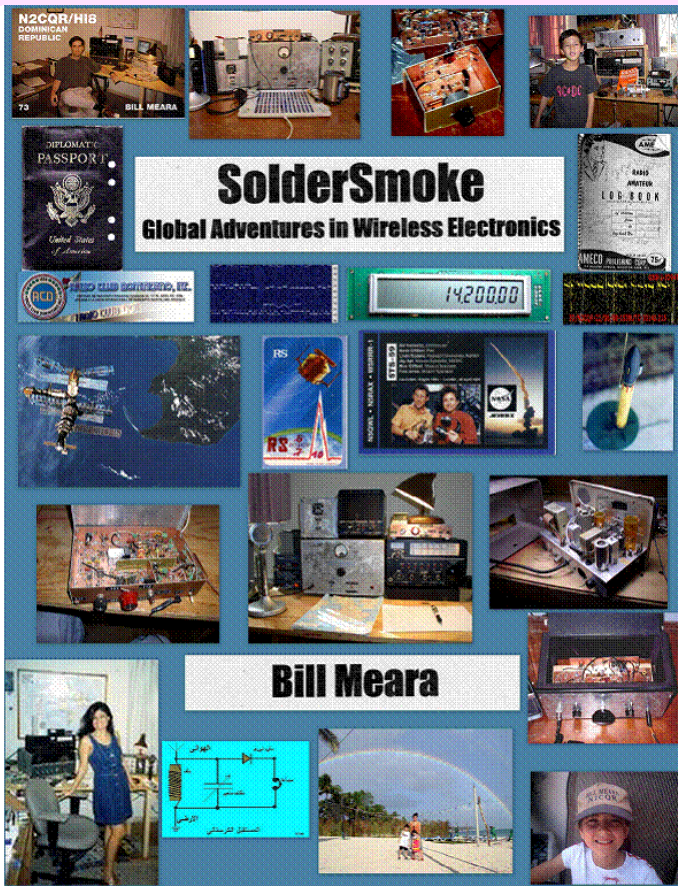
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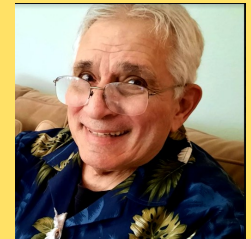


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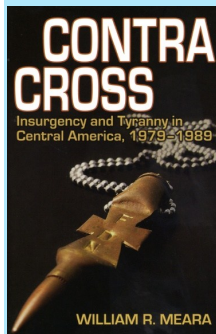


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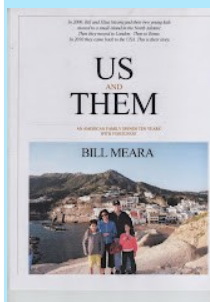


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