Ham Radio Ireland

Ag freastal ar thraidisiún agus ar spiorad an raidió amaitéarach

Editor: *Steve Wright - EI5DD* *wright14@gmail.com* **Vol. 3 Issue 02** **April 2025**

HAM RADIO IRELAND

Ham Radio Ireland has been well supported and we have over 5,000 downloads from our links in over 68 countries.

In point of fact we are the ONLY INDEPENDANT 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 as 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 welcome any articles submitted for publication and encourage those who have never written for a magazine before.

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, HF, VHF, UHF, Microwave and Satellite operation.

If you have never written an article before - NEVER A PROBLEM as we will help in any way possible.

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

Contents

April 2025

News and Events

Features

Submitting Items for This Magazine

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

Cover Image

Wayne, EI7HKB, setting up the EI3CC portable QO-100 satellite station

Views expressed in this publication do not necessarily reflect the views of the Editor, those of the Carrion Press or the Galway VHF Group

Collective
EI3CC
Communication

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

EURA
EUROPEAN RADIO AMATEURS' ORGANIZATION

Collective EI3CC Communication

Merchandise
Polo shirts Sweat Shirts
Beanie Hats Baseball Caps
Mugs and Stickers

Top Quality
Polo Shirts
all sizes and colours available

Quality Sweat Shirts
Various colours
and sizes available

Outdoor all weather
Jacket.
all sizes available
colours Light /Dark Grey and Navy Blue

Beanie Hats
Baseball Caps
With Logo

Mugs And our
well traveled
EI3CC Sticker.

Contact Sue, on messenger or WhatsApp for all orders

News and Forthcoming Events Planning 2025

Freedom of association: a right in danger in amateur radio

Some **IARU R1** 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**...

Amateur Radio News...

Spain again authorizes foreign novice licensees transmissions

Spain had been authorizing foreign radio amateurs, regardless of their license class, to use their equipment in the country for a period of 90 days a year, upon prior authorization, until 2023, when the Administration changed the criteria for interpreting the rule and denied all new applications.

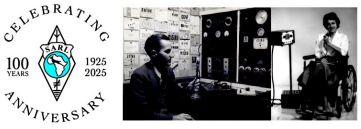
The **EURAO** member association in Spain, **FEDI-EA**, has been insisting all this time to the Administration to revert this interpretation to the one it had previously made, finally achieving that goal.

This type of temporary authorization is **free of charge**. Those interested must provide the address of residence during their stay in Spain and the start and end dates, as well as a copy of the ham licence and the passport. It is recommended to submit the application well in advance of the trip (at least six weeks).

The same also applies to those radio amateurs with a full licence from countries that have not adopted the CEPT Recommendation T/R 61-01.

If you need help with the process, you can become a member of FEDI-EA.

South African Radio League Centenary



On 20 May 2025, the South African Radio League (SARL) celebrates its 100th anniversary. In conjunction with the 100th anniversary of the SARL, the SARL Centenary Marathon QSO Party is set to kick off for a year-long operating event starting from 00:00 UTC on Wednesday 1st January 2025 and ending at 23:59 UTC on Wednesday 31st December 2025.

Participating amateur radio operators worldwide (including Short Wave Listeners) can accumulate points and win awards, by working South African amateur radio stations. During 2025, the SARL, with the aid of its members and associated clubs, will be on the air with a special event callsign **ZS100SARL**, as well as the permanent callsigns **ZS6SRL** and **ZS9HQ** and other special event callsigns.

HAM RADIO

Friedricschafen
June 27 –29, 2025

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.

BREAKING NEWS

NH National Hamfest

The National Hamfest 2025
Will take place on the 5th and 6th September.
George Stephenson Hall, Newark Showground, NG24 2NY.
We look forward to bringing you news and other information as we progress the build up for this years event.

Nervous Novices CW NET

Wednesday's at 20.30 UTC
Listen for "CQ NNCW"
The Speed of the Net is the speed of slowest operator
Net Controller
Eamo EI7LC
Freq 3.555 +/-
So call in and say hello

SOS Radio WEEK

SOS Radio Week takes place during the month of May every year to coincide with the Royal National Lifeboat Institute's (RNLI's) own Mayday fund-raising event. It starts at 00:00 (local) on the 1st May and ends at 23:59 (local) on the 31st May. Registered SOS Radio Week Stations will be on the air at various times during the event.

News and Forthcoming Events Planning 2025

MRD Maritime Radio Day is being held annually **14th to 15th of April** to remember almost one hundred years of wireless service for seafarers. Since its beginning in 1900 it was the most important communication service until the end of 1998. The date of MRD should be a reminder of the Titanic disaster in 1912.

- **Please Read the RULES and Page Instructions.** https://radioofficers.com/mrd-2025/mrd-rules/
- Registration opens on January 1st 2025. You register via the drop down menu on the MRD page. https://radioofficers.com/mrd-2025/registrations/
- Registration Closes April 1st 2025.
- MRD 2025 from **14th April 1200 UTC to 15th April 2200 UTC 2025**.
- Mode: CW only
- Log /Results Submissions by Midnight 30th April 2025.

Final Results published May 3rd 2025.

V-E Day Special Event Station

GB9VED Will be on Air From The 1st May until 28th May 2025. We Will Be On The Following Bands 80m 40m 20m 17m 12m 10m 2m 70cm. Remembering 80th Anniversary of the end of the Second World War, After the many deaths during the war in Europe, V-E Day was cause for worldwide celebration In Order to Receive The A5 Certificate please send a copy of logs by email only to: mi0mod@aol.com

We Have a Facebook Page

Ham Radio Ireland

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

British Railways Amateur Radio Society

The British Railways Amateur Radio Society is running special event station GB0LMR and GB2SDR during 2025 to celebrate 200 years of train travel since 1825. Starting from April, it will also be running GB2TT to celebrate the same anniversary. QSL will be via the Bureau. More information is available at QRZ.com and via www.brars.info

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, 2025

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 18-19, 2025

Spring - 3rd Full Weekend of April. April 19-20, 2025

Summer - 3rd Full Weekend of July. July 19-20, 2025

Autumn - 3rd Full Weekend of October. October 18-19, 2025

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

News and Forthcoming Events Planning 2025

Lough Erne Amateur Radio Club
Co FERMANAGH NORTHERN IRELAND
GNØLEC MNØRCF GB3CP

41st Annual Rally

Sunday 18th May 2025

Share Discovery Village, Lisnaskea, BT92 0JZ

Usual facilities for Food, Bar open (Lunch 12:00 to 13:30 Hrs)

Bring & Buy (at your risk, no charge)

Traders as follows initially, Peter Bell, Long Communications,

Jim-Bob Trainor, John Gillyland, Alan Weise, Brian McMahon

We have numerous independent sellers with all sorts of interesting things.

RSGB QSL Bureau/Book Stand

IRTS Stand

WAB Stand

Mayo Radio Experimenters

Collective Communication

Draw for a number of prizes at approximately 13:00 Hrs

Admission £/€5 to include draw ticket.

No charge for tables however everyone pays Entry Fee

Come and meet up with old friends!

Doors open 11:00Hrs (Traders 09:00 Hrs)

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 WI1IDP, QTH Tuscon 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.

Mills On The Air
Saturday 10th & Sunday 11th May 2025
www.nharg.org.uk/mota

World Amateur Radio Day

Every **April 18**, radio amateurs worldwide take to the airwaves in celebration of World Amateur Radio Day. It was on this day in 1925 that the International Amateur Radio Union was formed in Paris.

Amateur Radio experimenters were the first to discover that the short wave spectrum - far from being a wasteland - could support worldwide propagation. In the rush to use these shorter wavelengths, Amateur Radio was "in grave danger of being pushed aside," the IARU's history has noted. Amateur Radio pioneers met in Paris in 1925 and created the IARU to support Amateur Radio worldwide.

Just two years later, at the International Radiotelegraph Conference, Amateur Radio gained the allocations still recognized today - 160, 80, 40, 20, and 10 meters. Since its founding, the IARU has worked tirelessly to defend and expand the frequency allocations for Amateur Radio. Thanks to the support of enlightened administrations in every part of the globe, radio amateurs are now able to experiment and communicate in frequency bands strategically located throughout the radio spectrum. From the 25 countries that formed the IARU in 1925, the IARU has grown to include 160 member-societies in three regions. IARU Region 1 includes Europe, Africa, the Middle East, and Northern Asia. Region 2 covers the Americas, and Region 3 is comprised of Australia, New Zealand, the Pacific island nations, and most of Asia. The International Telecommunication Union (ITU) has recognized the IARU as representing the interests of Amateur Radio. Today, Amateur Radio is more popular than ever, with more than 3,000,000 licensed operators!

World Amateur Radio Day is the day when IARU Member - Societies can show our capabilities to the public and enjoy global friendship with other Amateurs worldwide.

Events & Activities Planner

St Patricks Day	17th March
Maritime Radio Day	14th - 15th April
IARU World Amateur Radio Day	18th April
International Marconi Day	26th April
Mills on the Air	13th - 14th May
LEARC (Enniskillen) Rally	18th May
V-E Day Special Event Station	1st - 28th May
SOS Radio Week	1st - 31st May
Museums on the Air 1st W/E	21st - 22nd June
Friedrichshafen Ham Radio Exhibition	27th - 29th June
Museums on the Air 2nd W/E	28th - 29th June
ILLW Lighthouses on the Air	16th - 17th August
British Inland Waterways on the Air	Held in August
G-QRP Convention	30th - 31st August
Newark Ham Fest	5th - 6th September
Churches on the Air	13th September
Railways on the Air	27th-28th Sept
JOTA Scouts on the Air	17th - 19th October

News From Northern Ireland - RSGB Region 8

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
Enquiries to: 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

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

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

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

City of Belfast Amateur Radio Society

The City of Belfast Amateur Radio Society meets on the first Monday of each month a 8pm in the Shorts Recreation Club, Aircraft Park, Holywood Road, Belfast BT4 1SL. Contact Paul Irwin GI6FEN for more information E-mail: paulirwin@btinteret.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

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.

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

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Co FERMANAGH NORTHERN IRELAND

GNØLEC MNØRCF GB3CP

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Come and meet up with old friends!

Doors open 11:00Hrs (Traders 09:00 Hrs)

YAESU

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

This month's Featured Yaesu

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.....**£599.95**

NEW 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**

NEW Yaesu FT-3185 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. **£229.99**

NEW Yaesu FT-3165 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 £156.00**

FT-710 AESS HF/6/4m All Mode Compact Transceiver. Perfectly sized & simple to use. **£985.00**
FT-710 Field (no speaker)..... **£899.00 FREE Yaesu Hat**
Yaesu FTM-6000E Dual Band 50W 2/70 FM Mobile Transceiver **£190.00**
Yaesu FTM-300DE 50W C4FM/FM 144/430MHz Dual Band Digital Mobile Transceiver..... **£349.99**
Yaesu FTM-200DE Single RX C4FM Mob **£295.00**
FTdx101D 100W HF/6m Transceiver ..... **£2999.00 plus FREE Speaker**
FTdx101MP.....**£4099.99**
Yaesu FT-dx10 Narrow band SDR and Direct Sampling **£1339.99 plus FREE Yaesu Hat and £50 ML&S Voucher**
Yaesu FT-891 HF/6m Base/Mobile .....**£639.99 20% discount off FC-50 when bought together**
Yaesu FT-991A All-Mode Transceiver .....**£1199.00 plus FREE Yaesu Hat**
Yaesu FT-5DE IPX7 Dual C4FM RX Handie.....**£344.00**
Yaesu 70DE C4FM/FM 144-430MHz Dual Band Handie..... **£167.95**
Yaesu DR-2XE C4FM Repeater..... **£1249.99**
Yaesu FT-65E VHF/UHF 2m/70cm Dual Band FM Handie **£84.95**
Yaesu FT-4XE 5W VHF/UHF FM Portable Transceiver.....**£59.95**
Yaesu M-70 Desktop Microphone..... **£129.95**

This month's Featured Yaesu

Yaesu FTX-1F

ALL BAND ALL MODE PORTABLE

Another Dream Radio from Yaesu

Taking over from where the best-selling FT-818 left off, the new FTX-1F is due into us early 2025

- 6W/10W on any band
- 160-70cm incl 4m
- Twin RX with any mode on either receiver
- SDR Technology and 3DSS
- 5670mAh high-capacity Li-ion battery pack
- Dual Loudspeakers
- USB ports support CAT operation, audio input/output and TX control

Join our reserve list at HamRadio.co.uk/FTX1F

KENWOOD

ML&S Officially Appointed UK Sole Distributor & Repair Workshop for Kenwood's Ham Radio Products

New! Dual Band remote TM-D750E. First shown at Tokyo Ham Fair 2024. Due March 2025.

This month's Featured Kenwood

Kenwood TH-D75e

144/430MHz Handie

The new TH-D75E is the logical evolution of Kenwood's popular TH-D74E duo bander. 5W on 2/70. FM & D-Star, Built-in Digipeater, APRS, Wide-band all mode receive, IF Shift function, USB-C charging port & IP54/55 approved.

ML&S only £778.99

Kenwood TS-890S - BACK IN STOCK! Probably the best HF/6m Transceiver Kenwood have ever made.
Peter Hart was astounded by the receiver performance & general build quality. **This month's deal includes a FREE MC-43 microphone.** **£4124.00**

ICOM

ML&S Stock the Full Range of New Icom Products

This month's Featured Icom

It's Back! Icom IC-718

ML&S Price Just £779.99

You haven't stopped asking for it since Icom took it out of production but it's back. An HF/6m 100W Base Transceiver with no frills, just a good honest easy to use radio. Price is great too!
See HamRadio.co.uk/IC718

Icom IC-7760 200W HF/6m 50MHz Remote head transceiver. Due soon! Reserve with a £250 deposit. **£5699.00**

Icom IC-705 Transportable Masterpiece! ....**Only £1349.95**
Bundle deals available

IC-PW2 HF/50 MHz 1 kW Linear Amplifier
A high-performance, multi-function linear amplifier is one of the key pieces of equipment for keen competition in DX hunting and contesting. Increased Linearity & Clean Transmission with the Digital Pre-Distortion (DPD) Technology (with the IC-7610) **£5375**

Icom IC-905 VHF/UHF/SHF D-Star Transceiver
The IC-905 is a versatile all-mode transceiver that covers 144-5600MHz and includes a 10GHz transverter option, providing access to VHF/UHF and SHF frequencies.
£2849.00 or CALL for package price!
Icom CX-10G 10GHz Transverter **£1450.00**
Or buy together with IC-905. Call for package price!
The Icom CX-10G 10GHz Transverter is a high-performance radio frequency (RF) converter designed for amateur radio enthusiasts and radio experimenters.
ID-52E PLUS Dual Band D STAR Digital Trsvr **£559.99**
ID-52E PLUS 60th Anniversary Version Identical to ID-52E including BluetoothR connectivity **£619.95**
Icom IC-7100 HF/6m/4m/2m/70cm Base & Mobile Transceiver including D-Star with remote control head unit
PRICE DROP RRP £1270.00 ML&S £1199.99
IC-R6E 0.100–1309.995MHz Handheld receiver ..... **PRICE DROP £220.00 ML&S £199.00**
Icom IC-7610 SDR HF/50MHz Transceiver with **FREE SPEAKER and Mic**.....**£3299.99**
Icom ID-50E Compact VHF/UHF dual bander with both D-STAR and FM dual modes.....**SPECIAL PRICE £299.00**
Icom IC-705 The worlds best selling All-Band All Mode Transportable 160m-70cm **£1299.00**
Icom AH-705 Random wire auto tuner for IC-705. ..... **£299.99**
Icom IC-7300 Best selling 100 Watt - HF/50/70MHz Transceiver with SSB / CW / RTTY / AM / FM ..... **with FREE SHIPPING £1199.00**
PTRX-7300 High quality RF interface module for the IC-7300.....**£209.99**
PTRX-9700 with FREE SHIPPING.....**£280.00**
Icom IC-7610 Brilliant Dual Band Transceiver **With FREE SP-41 base speaker** **£3299.95**
Icom IC-9700 With FREE SP-38 speaker worth £156 Base Station 2/70/23 all mode including D-Star .**£1899.95**
Icom IC-R8600 New 100kHz-3GHz Receiver with SDR technology from IC-7300 .....**£2549.00**
Icom ID-5100 Latest 2/70 D-Star Touch Screen Transceiver ..... **£639.95** Deluxe Version also available for £799.95
NEW! Icom AH-730 100W Remote Auto-ATU..... **£550.00**

ML&S are No.1 for Transceivers, Tuners, Linear Amps, Dummy Loads, Power Supplies, Antennas & Accessories

Lido In-Car Mounting Kits

Lido Cup Holder Mount. £31.20
This is just one example of the many available in store.
See web for our full selection

Flex products available at ML&S

4O3A Noise Cancelling Headset NC-1 BT

Offers ideal suppression of external noise in any situation. Thus, thanks to ANC (active noise cancelling), you can perfectly concentrate on quiet and weak signals even in noisy environments and are less distracted. In hectic contest operations, this can be a clear advantage!..... **£279.95**

Flex Power Genius XL

There's power. And then there is POWER! But one can never have too much power which is where the Power Genius XL amplifier comes into play taking your perfectly good radio and amplifies its performance exponentially.
..... **RRP £6899.99 ML&S ONLY £5799.99**

Hear those weak signals with bhi DSP noise cancelling products designed and built in Great Britain.

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. **£190.00**
ParaPro EQ20 Audio processing unit **£249.95**
ParaPro EQ20B Audio processing unit (Bluetooth version)..... **£220.00**
BHi NCH Active noise cancelling headphones..... **£29.95**
BHi HP-1 BHi Wired stereo communications headphones..... **£19.99**

13ft/400cm Air Cushioned TRIPOD

Air Cushioned Light Stand- Integrated with the air cushion to protect your device from abrupt drops.
Optimum supporting tool for heavy photography softboxes, strobe lights and Bowens video lights. **£95.00**

DigiRig Isolater

Eliminate audio noise caused by ground loops by isolating your PC from transceiver .. **£29.95**

ZUMSPOT Mini 2.4" OLED LCD Pi Zero 2

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**

ZUM Radio Elite

3.5 LCD small and efficient Multi-Mode Digital Hotspot High performance 32-bit ARM processor. Fully assembled and tested in exclusive custom injection molded case. Includes a Raspberry Pi 4. Supports DMR, P-25, D-Star, YSF, NXDN, POCSAG and M17. Onboard LEDs to show status (Tx, Rx, Status and Mode). Up to 10mW RF transmit power. SMA antenna connector, UHF antenna included. Includes pre-programmed and pre-configured SD card with Pi-Star. The open source firmware (MMDVM) is pre-loaded. Built-in 3.5" LCD screen. Includes 3A USB-C power supply. 1 year warranty..... **£255.95**

FunCube Dongle Pro+

Exclusive Distributor

The grandaddy of them all and still selling thousands every year. Designed and built in the UK, this plug in device covers 150kHz - 1.9GHz. **£179.99**

ML&S RANGE OF LINEAR AMPLIFIERS

ACOM 1400S

Solid-State 1.8-54 MHz Linear Amplifier
ETA March 2025.
£3640.00
The ACOM 1400S is a 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 ACOM 06AT tuner is the optimal option for use with ACOM 1400S. Both devices share the same front panel design and will look magnificent in your shack.
ACOM 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.

Acom 500S

500W 160m-4m 500W Linear Amplifier IN STOCK
The ACOM 500S is a state-of-the art linear power amplifier that covers all amateur bands from 1.8 through 70.5MHz and provides 500W rated output power (PEP or digital) **£2299.00**

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SPE Expert 1.5K-FA Taurus
Solid-state linear amplifier at the forefront of RF engineering. It provides 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..... **£4399.99**

Hilberling HPA-8000B

1kW Power Amplifier. 160/80/40/30/20/17/15/12/10/6/4m bands. All-mode: AM/FM/SSB/CW. Internal power supply: 200-260V **£5800.00**

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Nissei DG-103 MAX
Digital Display SWR/Power Meter.This digital SWR & Watt meter is highly accurate for measuring Forward Power,Reflected Power, & VSWR **£149.99**
DG-103 Digital Display SWR/Power Meter..... **£131.95**
DG-503Max Digital Power Meter..... **Only £159.95**
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NS-2230D 30Amp PSU, Front Power Pole Connectors..... **£84.95**

MyDEL Nissei Compact in-line meters

RS-50: £65.95. RS-70: £76.95 The RS-50 (120W 2m & 70cm) & 70 (200W 160m-6m) are compact in-line meters that present power and SWR on a digital backlit LCD display.

ML&S UK Distributor for Sangean

SANGEAN MMR-99-DAB
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Multi-Powered Digital-Tuning Radio DAB+ / FM / Bluetooth / AUX /

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The Survivor DAB rechargeable emergency radio.

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Graphite Black or white versions. Ultimate FM / SW / MW/ LW / Air / Multi-Band Receiver..... **£189.00**

Sangean Premium Wooden Cabinet Radio DAB+ / FM-RDS / Bluetooth / AUX. £195.00

Anytone AT-588

4m Transceiver 70MHz.

£149.99

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10m Mobile Transceiver AM FM SSB 10m Radio 28-29.700 MHz 80W.

£219.95

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ML&S are the official UK importer for Heil SOUND

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A high power DC regulated Switch Mode power supply, providing up to 30amp maximum current.Comes with Over Voltage, Current Limiting and Short Circuit Protection. **£79.00**

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Super Lightweight Metered PSU 48-50 Amp, 9-15V DC power supply **£120.00**

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The QJE QJ1830SC is a high-quality 30A linear power supply designed to provide reliable and stable DC power for a variety of radio communication and electronic applications. **£109.99**

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Low-RFI AC Power Supply for HF Transceivers Small, light, easily portable high-power DC supply which has low AC input to DC output coupling. This is critical to minimise RFI due to common-mode currents often found with temporary antennas such as end-feds or verticals. **£69.95**

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Compact Desktop Power Supply sets the new standard for high quality. **£419.95**

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ML&S are the sole UK distributors for the DVMega Range of products

DVMega is a collective name for digital voice and data related kits and modules. C4FM, DMR and D-STAR is supported with more digital voice and data modes added all the time.

DVMega Cast. AMBE3000 based Multimode IP radio for DMR, D-Star and Fusion. The DVMEGA Cast is compatible with Ham radio networks like BrandMeister, DMR+, YSF, FSC, REF, XRF, XLX, DSC etc. **£329.95**

DVMega DVstick 30. USB-stick facilitates the use of a PC to communicate on Dstar, DMR and C4FM! Just install BlueDV and use the PC-microphone & speakers to communicate to reflectors/talkgroups. Ideal solution to use on a laptop whilst travelling. **£94.00**

Digirig Lite rev 1.2

A minimalistic version of Digirig with the same audio code as regular model of the interface but without serial port.

- Combines audio codec and PTT switch
- Supports PTT by GPIO3 of CM108 audio codec
- Supports VOX PTT by the tone on the unused right channel (experimental)
- Works with all major OS flavors: Windows, MacOS and Linux
- Uses a single TRRS connector compatible with existing Digirig audio cables
- Growing collection of pre-made cables including popular Icom, Yaesu, Elecraft, Baofeng, Xiegu transceivers
- Isolation can be easily added using a USB isolator dongle..... **£47.95**

DX COMMANDER
DX Commander Amateur Radio Antennas

Introducing The DX Commander Range.
Available NOW!

7m Telescopic Antenna Pole...£39.00
18m Telescopic Pole..... £239.00
Bundle Kit. Signature 9 All-band Vertical..... £399.00
Signature 9, pole only. £89.00
12.4m Pole £139.00
Bundle Kit. Signature 12.4 All-band Vertical 80m..... £499.00
Biodegradable Ground Radial Pins..... £22.50
Rapide PLUS Ground Post £39.00
Signature 9 Ground Post..... £49.00
Antenna Tow Ball Mount £49.00
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10m Expedition Travel POTA Pole £72.00
10m Original Classic Telescopic Pole. £59.00
50mm EzyClamp Wing Nut. ...£14.90

Bundle Kit - Rapide Ham Radio Antenna (40m - 6m) £249.00
Bundle Kit - Rapide Plus Self Supporting (40m - 6m)..... £289.00
Bundle Kit - Signature 18m Multi-band Antenna Nebula..... £529.00
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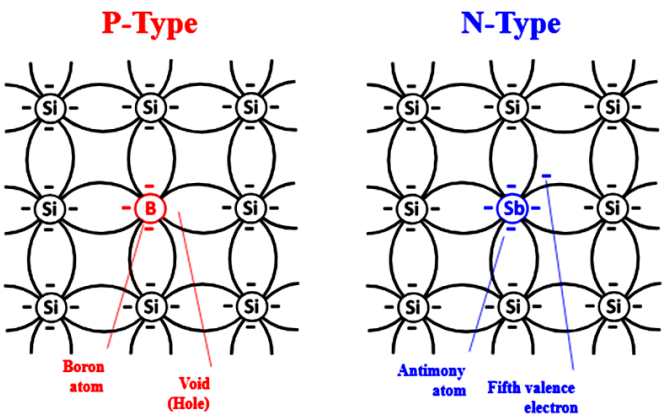
Guy Rings ..... £7.50 each.
12m Extra Long Telescopic Antenna Support. The cut-down version of the full DX Commander..... £129.00
7m Telescopic Antenna Pole for Dipoles, Doublets and Vertical..... £39.00

Diodes are very common, but how do they work?

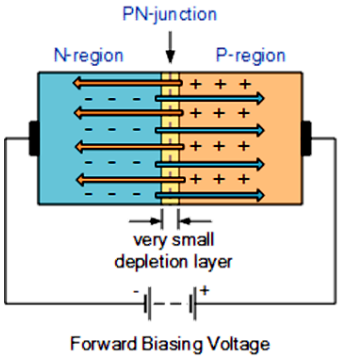
A junction diode is made of two pieces of silicon or germanium, which have been chemically 'doped'. Pure silicon is an insulator because each atom has 4 electrons in its outer shell, all committed to bonding the silicon lattice together, so there are no spare electrons to carry any electric current. However, if it is doped by adding a tiny quantity of another material, it becomes a semi-conductor. A junction diode needs one piece doped to become P type and one doped to become N type.

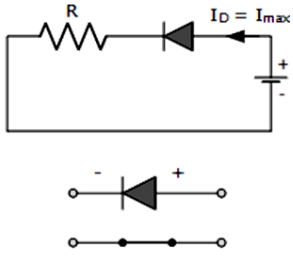
P type has a minute amount of aluminium, boron or indium added. The resulting crystal lattice has holes where electrons are absent. N type has phosphorous, antimony or arsenic added, giving the resulting lattice an excess of electrons.



Making a Junction Diode

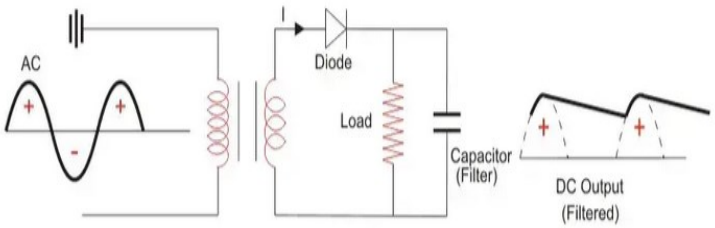
When a piece of P doped silicon meets a piece of doped N, some of the excess electrons in the N type migrate across the junction to fill some holes in the P lattice. However, as each electron moves across the junction, the N type becomes increasingly less negative. Conversely, each -ve electron filling holes in the P type makes it less positive. This process continues until the voltage between them gets so large that no more electrons are able travel across the 'depletion' zone, being repelled by the -ve voltage now on the P type. This voltage across the junction is around 0.7volts (0.4v for germanium) This is called the barrier potential.





Using a silicon diode to rectify AC

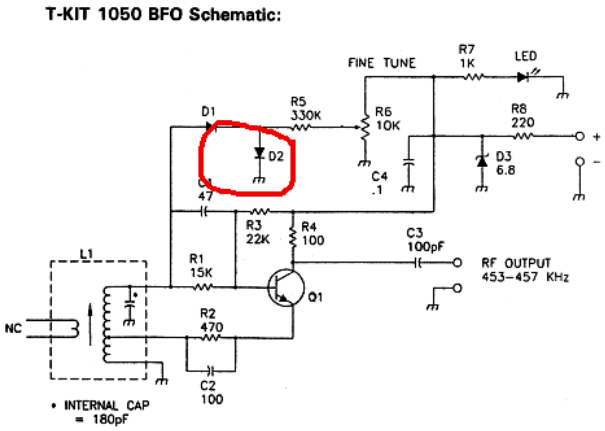
If the diode is to be used for AC rectification, then, providing that the barrier potential is overcome by the positive part of the AC input voltage on the P type anode, then the diode will conduct, with electrons passing from the N type into it. These are drawn from the associated smoothing capacitor, thereby building up a +ve voltage on it. When the input AC voltage on the P type anode becomes negative, no current can now flow. The load then uses the +ve charge in the capacitor until the next +ve half cycle recharges the capacitor.



Junction Diodes used as a Varactor to tune an oscillator

Once the P and N junction have developed the barrier potential there are now no electrons in the 'depletion' zone. This space is thus an insulator and is the dielectric of a capacitor now formed between the two parts of the diode. By using a variable +ve voltage on the N type (or -ve on the P type), the value of the capacitance can be varied. The pF value is dependent on the value of the applied DC voltage. The supply voltage to the controlling potentiometer MUST be stabilised. This is to avoid frequency instability when varactors are used for frequency control of an oscillator, e.g. a Beat Frequency/Carrier Insertion oscillator. The knob controlling the tuning potentiometer is marked + and -, indicating the increase/decrease of frequency.

Note. Germanium junction diodes have a 0.4v barrier potential and are used for low power



Michael J. Street G3JKX

ELARC Does Bunkers on the Air

What about establishing a 4-metre net along the Irish coast? Operating /P and /M is at the core of activities at the East Leinster Amateur Radio Club (ELARC) (www.ei0el.com) and we enjoy operating on 4-metres.

We operate SOTA, POTA and LOTA 'Lighthouses on the air', and now we can do BOTA, that's 'Bunkers on the air', and set up the coastal net.

The now-demolished LOP at Howth Summit car park photographed in 2005. Most LOPs were built in 1940 to this standard design. (Michael Kennedy)

BOTA originated in Britain with amateur radio operations from former Royal Observer Corps bunkers. It has grown into a Europe-wide venture (https://wwbota.org/), with Ireland joining in January 2025.

The locations of eighty-three abandoned Defence Forces Second World War Marine and Coast Watching Service Look Out Posts (LOPs) make up the current extent of EI BOTA. The details are here at https://wwbota.org/eibota/ with links to other sources. In short, the LOP chain runs from Ballagan Point in Louth clockwise to Inishowen Head in north Donegal, most LOP locations are easily accessible and easy to operate from, especially with an activation zone of one kilometre. These zones often include other 'non-BOTA' structures of interest such as ruined coastguard stations or Napoleonic-era watch towers which are nevertheless locations, if safe, to operate from on a BOTA activation.

Back during the Second World War LOPs were connected to their commanders and each other by telephone rather than by radio, but they were connected and had the capacity for real-time communications with each other - just like the plan for a coastal net.

Frank EI8HIB and Dom EI5IAB at B/EI-0001 LOP 1 (Ballagan Point, Co, Louth). (Frank McKeown)

Our plan was for members of ELARC to set up /P at LOP locations along the east coast and be operational from 1100 local on 15 February 2025. Frank (EI8HIB) and Dom (EI5IAB) chose LOP 1 (B/EI-0001) at Ballagan Point, which is located in an old Coastguard Station compound. Tom (EI5IEB), Michael (SWL) and Mack (EI6IZB) chose LOP 3 (B/EI-0003) on Clogher Head above Port Oriel pier. Michael (EI6IRB) was at Howth Summit at LOP 6 (B/EI-0006). Ian (EI4DP) was located on Bray Head in the activation zone for LOP 8 (B/EI-0008).

Our first objective was to establish a 4-metre net on FM. We wanted to see how stations received each other and to what extent 4-metres would be suitable for a more substantial net stretching further along the coast.

The net was up and running shortly after 1100. We started on 70.350 MHz but moved to 70.400 MHz as there was a British repeater station, most likely MB7IRX at Prescot in Lancashire, Northwest England, on 70.350 MHz.

Tom (EI5IEB) at B/EI0003 Clogher Head became de facto net control as he could hear all stations. Ian (EI4DP), operating at altitude at B/EI-0008 on Bray Head, could receive all stations. Frank and Dom, operating at sea level, could not receive Ian, or Michael at B/EI-0006 Howth Summit, but got Tom at Clogher Head with a 5 / 8 signal report both ways. Johnnie (EI8IPB) joined in from his home QTH in north County Dublin and could hear bunkers B/EI-0003, B/EI0006 and B/EI-0008. Michael had two-way communications with Johnnie, Tom and Ian, though he could barely hear Frank and Dom and they could not hear him. This was most likely due to Michael's specific location on Howth Head inhibiting the signal path further north than Tom at Clogher Head. Michael and Ian were 5/9 both ways

ELARC Does Bunkers on the Air

and Michael and Tom were 4/8 Tom to Michael, and 5/9 Michael to Tom.

In short, as might be expected, if you had line of sight and altitude you were in a better position despite the contour-hugging capabilities of 4-metres.

The result: despite some reception difficulties due to locations, 4-metres worked for the coastal net. We wondered about a future net doing a message relay from bunker to bunker along the coast. Weather was atrocious on the day and a future net in fine weather could also follow the Coast Watchers before them by simulating a watch at a LOP and noting movements by sea and air: Michael and Ian were hearing the same aircraft in their vicinity as they approached or departed Dublin Airport but the fog was too thick to identify them other than by sound.

After the successful conclusion of the 4-metre net Michael, Ian and Johnnie tested some equipment on 4-metres and 2-metres and were joined on-air by Iain EI5GN.

Bunker	LOP	Location	County	Operator(s)	Locator	Distance from Ballagan Point	Height above sea level
B/EI-0001	1	Ballagan Point	Louth	Frank (EI8HIB), Dom (EI5IAB)	IO63WX	0 km	7 metres
B/EI-0003	3	Clogher Head	Louth	Tom (EI5IEB), Michael (SWL) and Mack (EI6IZB)	IO63VT	24 km	20 metres
B/EI-0006	6	Howth Summit	Dublin	Michael (EI6IRB)	IO63XI	72 km	138 metres
B/EI-0008	8	Bray Head	Wicklow	Ian (EI4DP)	IO63XE	92 km	195 metres

Tom EI5IEB operating from the old Coastguard Watch House at B/EI-0003 at Clogher Head. (Michael O'Connor)

Clogher Head LOP (LOP No. 3) shortly after construction in 1940. (Courtesy National Archives of Ireland)

On 4-metres, Michael was using a Clansman 352 and a ground spike antenna transmitting 20 watts and later on HF a PRC-2200 with an inverted V dipole; Frank and Dom were using a 4-metre Cleartone rig with a Hawkins Viper 4-metre antenna and later on HF a XIEGU 6100 HF rig with a homebrew 40m dipole antenna (inverted V). Tom's station had an Anytone AT-588 and a Hawkins Viper 4m antenna, Ian was using an Anytone AT-779 and a homebrew 4 metre Slim Jim.

Bunkers EI-0001, EI-0003 and EI-0006 moved to HF operation on 40 metres close to midday. We were joined by our friend Vic (EI5IYB) on 40 metres from his home QTH in County Kildare for part of the activation operation. The band was nicely open into the United

ELARC Does Bunkers on the Air

Tom EI5IEB operating from the old Coastguard Watch House at B/EI-0003 at Clogher Head. (Michael O'Connor)

The old Coastguard Station Watch House B/EI-0003 at Clogher Head. (Michael O'Connor)

Kingdom, but unfortunately, the WWBOTA cluster was down while we were operating and we were unable to announce our activations. Forty metres also seemed to close in the early afternoon and that restricted QSOs.

To activate an EI bunker an operator needs 15 QSOs. The bunker at Clogher Head was activated by Tom, but Michael, Frank and Dom did not get enough QSOs to activate their locations. Ian was simply scoping out his location for a future operation and did not embark on an activation at Bray Head.

A large part of the fun of operating /P is about who you meet while you are out on the ground. Michael met a German lady walking dogs who was very interested in the old Clansman military equipment he was using. Frank and Dom were invited in for tea and sandwiches by a local. Tom, Michael and Mack kept an eye on what was happening at Clogher Head and got cake and coffee nearby. And with their successful activation to include that is the best result one can wish for.

Michael Kennedy EI6IRB
michaeljkennedy70@gmail.com

EI Bunkers On The Air is currently work in progress

At present EIBOTA reflects only the Look Out Posts of the Irish Defence Bunkers, Pill Boxes, Costal Defence Forts and other relevant sites will be added later. The map shows the locations of Coastal Defence Look Out Posts.

LOPS were continuously manned 24/7 365 days a year by members of the Marine and Coast Watching Service who reported all sightings on land, sea and in the air by telephone to local Defence Forces intelligence officers who in turn reported sightings to Defence Forces Headquarters in Dublin. In 1945 the network of LOPs was closed down. A number of LOPs were designated as fallout monitoring positions in the 1960s and 1970s.

Activity and participants

The main goal of the programme is the enjoyment of activating and hunting bunkers.

1 EIBOTA is not a contest.
2 Amateur operators can participate as Activators and/or Hunters.
3 SWL (Short wave listeners) are also encouraged to participate.
4 All bands and modes are valid according to the license of the operators and the regulations in Ireland.
5 Bunkers must be activated in person.
6 No repeaters may be used for EIBOTA QSOs.
7 The programme is based on the personal integrity of the participants.

Phoenix Amateur Radio Rally 2025

EI3CC again attended the Phoenix Rally in Coolmine, Dublin. We had a table booked so an early start for me John EI3HQB at 6.30am and on to Thomas town to pick up Wayne EI7HKB and SWL Alex EI1895.

The rally has an early entry time to the public of 10am so we needed to be on site at least 9am and get prepared for a busy day.

We took it steady up the M9 and arrived a little ahead of time even after getting a sandwich on the way, we got stuck into setting up the EI3CC table and soon we had visitors to the stand even before the doors opened.

Eventually we and the rest in the room were ready for the public I was somewhat surprised to see empty tables as this being the first of the year tends to be packed solid maybe the 10am start was having an effect.

The stand had a lot of EI3CC merchandise displayed as well as Wayne's Sat Rover for Q-100.

Again, the star attraction was the Q-100 operating with the Satrover.it was great to talk to a few operatives that had gone and purchased the equipment of the back of seeing us out operating.

Another item on the table that was attracting a lot of interest to was the relaunched Ham Radio Magazine.

A lot of comments on the quality of the articles and the fact that it had something for everyone in it.
Currently to date the magazine has been downloaded 3,800 times with a circulation in 68 countries.

We had some new members join on the day and it was great to catch up with friends in 2025.

??, Dave 29DM840 ,John EI2FN, John EI3HQB

Wayne EI7HKB *Charlie EI8JB*

So on to the next outing and maybe we will see you visit us at one of our activations if not then at the next rally.

The JNC Radio MC-750 HF Antenna

Having a great interest in portable operations I always keep an eye out for new portable and easy deployable antennas. The JNC Radio MC-750 HF GP came to my attention via a Martin Lynch video) where it was demonstrated in conjunction with a QRP radio. Martin Lynch & Sons are the UK distributers of this product which is currently priced at £195.00 including VAT.

The JNC Radio MC-750 portable HF GP antenna comes as a kit packed neatly in a carry bag. Not too large at 69 x 9 x 7cms and could be carried on a plane as hand luggage, only weighing 1.8 Kg. This could be easily carried in conjunction with an ICOM LC 192 backpack.

The JNC Radio Antenna - All parts stowed in the carrying case

What's In the Bag?

- 1 x Ground Spike
- Rod (Antenna Base attached)
- 1 x 7MHz Coil
- 1 x 50 cm antenna arm
- 1 x 5.2m Whip
- 4 x Counterpoise 3.5m wire (radials)
- 1 x Reel for Radials
- 1 x Carry Bag
- 1 x Optional Tripod with adaptor

No instructions are supplied, however they can be downloaded from https://chelegance.github.io/WIKI/ANT/MC-750/USER-MANUAL_MC-750_v1.0.pdf

Note that the 7MHz loading coil should be placed at the top of the 50cm antenna arm where the telescopic section is normally attached.

First time unpacking, the base is already attached to the threaded ground spike, and it is a simple job to unscrew it if the tripod is to be used. Assuming the ground spike is to be used with the antenna base attached it is a simple task to screw the antenna arm to the base and then push the assembly into the ground.

Assembly at he base of the antenna with radials attached. There is no coil used for bands 20 -10 metres

The spike does not serve as an earth and is just used as a to support the antenna in soft ground. The tripod can be used where there is a hard surface. The antenna base has no matching device inside and is just a neat way to connect the cable to the antenna and the radials.

Next screw the whip section into the antenna arm. At this point carefully pull out each section of the whip one at a time keeping an eye out for the embossed band designator. Obviously, the shortest will be the 28 MHz section with the 14 MHz being the longest. Withdraw the telescopic section to the line beneath the embossed band marking illustrated below.

The JNC Radio MC-750 HF Antenna

Next unwind each of the 4 radials from the reel. Each radial has a small banana plug on the end which is inserted into the appropriate holes on the antennas base. Finally attach the coax to the socket on the antennas base. Naturally, it may be necessary to fine tune the antenna. Modern rigs have an SWR function, and it is possible to adjust he antenna for best results. I prefer to use an antenna analyser or VNA to get the precise reading before connecting to the radio. Amazingly the markings on the whip are almost perfect although a couple of millimetres will be required to adjust to the best SWR. Remember with QRP operation every bit of forward power counts.

A tripod may be used instead of the ground spike which involves screwing a small adaptor into the antenna base and dropping the assembly into the tripod. A wing nut on the side of the tripod needs to be tightened. The performance of the antenna will not be affected by using the tripod instead.

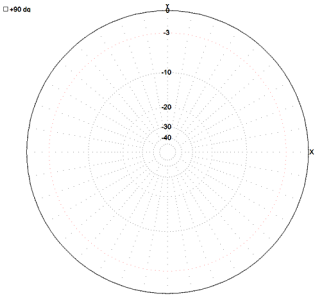
On portable expeditions, it may be necessary to guy the antenna to prevent it blowing over; a precaution to prevent damage to the telescopic whip which is the weak point in this antenna system. If using the tripod, there is a hole in one of the legs where a tent peg could be pushed through to secure it into the ground. Obviously, the secured leg of the tripod should be placed on the windward side of the antenna.

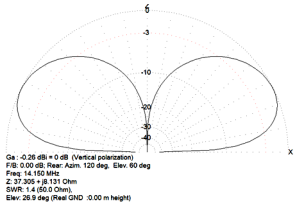
Operation on 7 MHz requires the insertion of the loading coil at the top of to 50cm Antenna arm where the telescopic whip is normally placed. The coil is screwed onto the antenna arm and the whip section is screwed into the top of the coil.

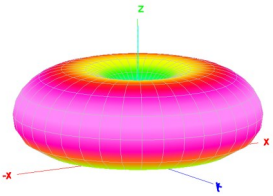
The major plus point was that the telescopic antenna could be adjusted to be a ¼ wave antenna for any one of the bands from 14 - 18 MHz without the need for loading coils as opposed to some other portable systems that are shortened antennas with a centre loading coil, thereby minimising losses. Every milliwatt counts with QRP!

The supplied whip fully extended is 5.2 metres long with markings embossed at the appropriate lengths for 14, 18, 21, 24, and 28MHz. a 7 MHz coil is supplied which can be added to allow 7MHz operation although this is not going to be a ¼ wave antenna, but more of a loaded vertical which would be a compromise on this band. A 33ft telescopic whip might be a little fragile impractical.

The antenna matches close to 50Ω coax according to the MFJ Antenna Analyser and the use of the tripod instead of the ground spike made no difference. 20 metres is generally the old reliable band and anything that was heard could be worked. Most reports received, were consistent with QRP operation rather than the usual 5 and 9s. As a rule of thumb, if you can hear the station, you will work it.







The vertical antenna is always a good choice for portable work especially in areas devoid of trees or skyhooks. The radiation pattern of a vertical is conducive to reasonable DX due to the lowish angle of radiation. The SWR of the system seemed to be fine at around 1.4-1.6: 1 which will not upset the transmitter unduly.

For the purposes of this article the set up was an ICOM IC-705, running 10 watts, with external power supply (a 12 V Battery) an MFJ Antenna Analyser and the MC-705 antenna with 20ft of Coax. This configuration was used as most of the activity planned would be portable from off road locations. Two areas were chosen, one being rough boggy terrain in and the other located on a beach in Salthill, Galway HF conditions permitted both 40 and 20m operation.

The first observation was that if there is a strong breeze the telescopic whip tends to bend quite severely and could be a weak point especially when used on 14 MHz where the whip is fully extended. Perhaps I was being over cautious, but it was the first test. Would this be suited to hilltop operation where the wind can be quite strong – the answer is no. If the day was calm an ideal antenna for POTA

According to the instruction manual. The antenna may be used on 10MHz if the 7MHz coil is fixed to the top of the 50cm Antenna Arm and extending the last four sections and 15cms of the telescoping whip, all other sections should be collapsed. This is just a rough guide. By extending only the last section of the whip, without using the 7MHz Coil, it is possible to use the antenna as a 50MHz ¼ wave vertical antenna. The rest of the sections should be collapsed.

By extending only the last section of the whip, without using the 7MHz Coil, it is possible to use the antenna as a 50MHz ¼ wave vertical antenna. The rest of the sections should be collapsed. ***Verdict - a great antenna kit!***

Steve Wright EI5DD
wright14@gmail.com

EI3CC Antenna Test Day

We at EI3CC like to get out and about and as those who follow us will know we like the technical side of our hobby too, so with that in mind we have run a few Tec Days our last was venturing into the world of Q-100 satellite operations. This time we would be running a day of testing antenna either built or bought by whoever came out to our location with the items, again our spot was the stunning location in Kilmurrin Cove on the cooper coast just outside Tramore.

Our antenna Test Site at Kilmurrin Cove

A 10am start was planned, and we were hoping for some sun too but alas the sun stayed well hid and the temperature was only about 8ºC but with a light breeze more like 5ºc.

As usual with our days out we again had a great attendance and soon the car park was taken over with EI3CC with our RCU and club members' cars. We got the RCU set up and running so at least we had a base that we could switch antenna during testing.

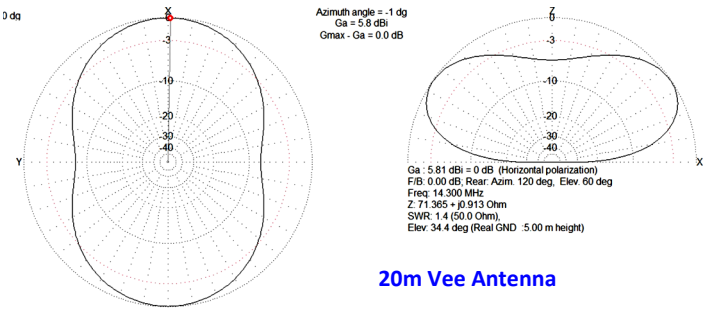
John EI6JOB had brought out his radio an FT710 and his portable Antenna a MC599. This piacular antenna is a Telescopic Vee Dipole. Freq range 14-50mhz and an Inverted-Vee antenna with the additional wires attached.

John had plans of doing a bit of POTA so it was a great time to be able to assemble and test the Antenna.

The antenna is well built and quick to assemble and in no time being light weight also made it a good antenna for POTA. The wires at the bottom of the telescopic can be added to allow you to operate on 40m.

John was unsure about setting the antenna on certain bands so Wayne EI7HKB was there to assist and resolve any issues that were occurring.

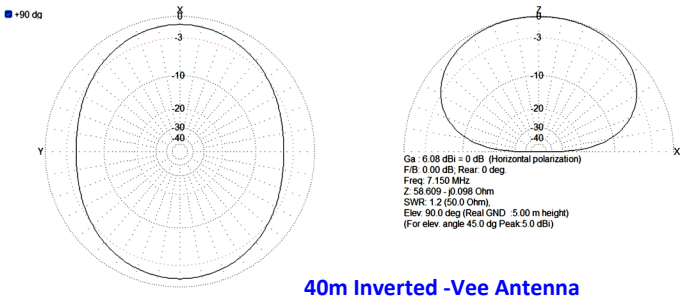
Using the MMANA-GAL Antenna modelling Software, the Vee antenna showed that the radiation pattern was good for DX on 14 MHz at 13ft above ground.



20m Vee Antenna

The 40m Inverted-Vee at the same height was more of an NVIS antenna which is perfect for daytime operation into the UK and Europe.

EI3CC Antenna Test Day



40m Inverted -Vee Antenna

Johns portable station is shown below.

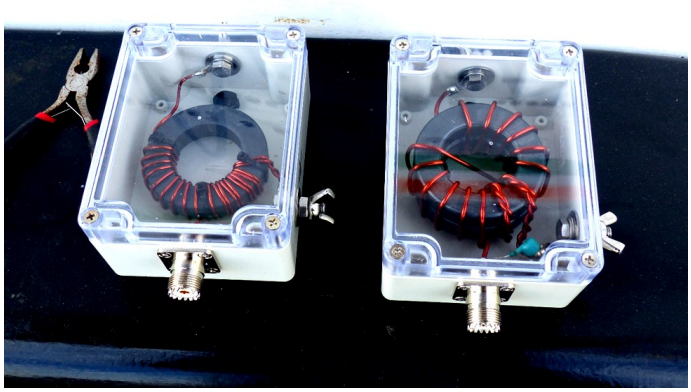
As soon as the FT710 was switched on it was alive with stations. John, living in the city, is somewhat restricted at home at present with antenna choice so to be out on a cliff overlooking the sea and working stations in the USA he was a happy camper.

Our attention then turned to one of our Club XYL's new car. Sue had replaced her car and now wanted to be able to have a radio fitted to it when needed. EI3HQB had built a home brew magnetic antenna base, and this was an ideal choice for Sue's car to be compact yet very strong with 3 x 60mm magnets.

Cables were made up and antenna placed on the car and a Watson 2-70 5/8 whip attached then tuned to a good SWR.

Sue was set up now and when in the convoy with us can at least hear what's going on.

Wayne EI7HKB is well known now in EI for his 49-1 end fed half wave antenna, so he had brought it along a few to tests.



A Dual core 49-1 , a single core 49-1 and a 9-1, these as I said, are Wayne's own builds and the quality is second to none he has the clear screen boxes deliberately so as the owners can view the contents of the package and see the quality of work even down to the turns that goes into one of his Kits.

Testing was simple enough as we had already had one of Wayne's antennas aloft so swapping just the 49-1 box and checking thru the bands that all was good made it straight forward.

Wayne was a happy camper and the operators who the antenna was made for would also be confident with the antenna.

EI3CC Antenna Test Day

The club has ventured into the world of QO-100 satellite we started playing around last summer with the Sat-Rover system.

It has been a learning curve for us and our main reason for going down the satellite route was our involvement in JOTA (scouts) we participate every year but on occasion there is a contest over the JOTA weekend or the bands can be at a loss with poor propagation, at least with a satellite link we have some coverage that at least the scouts are able to get in contact with other scout groups or operators via the space bird and all is not in vain in radio communication for the JOTA weekend.

Over the months it has been fun trying different size dishes, having started with a 80cm and our trusty FT290R radio we made some contacts we were then gifted a 90cm and then later a 100cm dish.

You could see each time improvements with increasing the dish size. Now we were given a new 120cm dish and we were only dying to test it out.

A few mods were needed to our mounting points and a new drive on will be made up to suit the new dish, but it was no big deal to have the system up and running in quick time.

I, EI3HQB, have loss in hearing to some degree but the difference the 120cm dish made was amazing with much stronger signals on receive and soon we were working many stations in various countries and more than happy that the system was working a treat.

Soon it got the Club's seal of approval the EI3CC sticker and will now be a part of our kit when we are out operating.

So was an Antenna test day worth it ? It was indeed, even if only John's (EI6JOB) antenna was sorted the grin on his face knowing now how to set up his gear would have been worth it.

Getting out with your club is a great way of social mixing even better if you are involved in building and experimenting with equipment that makes it more special, we at EI3CC always get out and about through the year (4000Km) last year you have to let people outside the hobby know you exist but also let them see it's fun too.

Our team again had a great day and already looking forward to the next club outing, thanks also to Dave (formally from Sydney) traveling around Ireland in his camper who spent the day with us and engrossed in the radio hobby, so maybe a future operator in the making.

Also, to Sam ZS6SAM who is waiting on his EI ticket too, so check us out on Facebook or our YouTube channel and you are more than welcome to join us.

John Tubritt - EI3HQB

ei3hqb@gmail.com

PMR 446 Radio

A 2-way radio is basically a radio that is structured to transmit and receive. In general, most voice wireless communications technology, counting cellular systems, are categorized by two-way radio definition. Usually, a 2-way radio refers to a radio system primarily utilized for group call communications. This 2-way system is also called PMR Private-Mobile Radio. Dale, EI7HDB, kindly donated a set of Motorola T80 handheld radios.

We have used these radios with our scout groups in the annual JOTA and found this model excellent.

You have 8 channels to choose from and you can code those 120 times, which means if, for instance you have channel 1 on the top of the screen, you can then have a number 001 in the lower portion of the screen, so only another radio with matching screen numbers will Tx and Rx together.

As can be seen in this picture Chanel 8 and Code 4 means these are compatible for TX/Rx so you have a great variety of privacy setting to use. You can also put a Name on the screen that will mean you have the same unit that you would use frequently.

These radios have an advertised range of 10kmwe can not confirm that range but we have used these at some of our events and not always in line of sight with excellent results, I would go as far as saying 6km is no issue to them and audio quality is superb nice and punchy.

The whole package comes in a very attractive case complete with chargers' lanyards to carry the radios around your neck if you did not want it on the rear belt clip also, they come with an ear / microphone / PTT.

- Weatherproof - IPX4 rated
- Winner of Red Dot design award. 8 PMR Channels
- 121 Sub-Codes (38 CTCSS Codes & 83 DCS codes)
- Up to 10 km Range*
- Internal VOX Circuitry
- LED Torch
- 10 Selectable Call Tone Alerts
- Backlit LCD Display
- Roger Beep
- Up Timer
- Room Monitor
- Battery Level Meter
- Channel Monitor
- Channel Scan
- Dual Watch
- Auto Power Off
- Auto Squelch Control
- Battery Low Alert
- Direct Call (Caller ID Call)
- Group Call
- Silent Mode (Keytone Off)

T80 Specifications

These units are very sturdy and take a bit of a knocking the build quality is very good as you would expect from Motorola initial charge time is approx. 14 hrs. they seem to have a good battery usage time and we have no trouble with 2 x days use with the scouts using them all day.

We are able to tune our own radio's like the Boafeng to these frequencies so this gives a large number of Radios we can use on the PMR freqs as required while needing a communication link with the groups.

So if you are considering a PMR radio maybe the Motorola Radio is the one for you, this model has now been superseded but these still have a good reputation among people that need PMR.

Frequency Chart

Channel	Frequency (MHz)
1	446.00625
2	446.01875
3	446.03125
4	446.04374
5	446.05625
6	446.06875
7	446.08125
8	446.09375

Dave, AKA "Delta Mike", Operates weekly transmissions via the World CB Ham Radio and Updates on Sunday evenings at 20:30. you can massage him whilst on Facebook or Call in via his Zello Link.

There is a slot for equipment buy and sell, News, Special Events and Promotion of all aspects of the Hobby.

Dave is a great supporter of Ham Radio Ireland Magazine and we have a slot on his regular Sunday Broadcasts. Both John EI3HQB and Steve EI5DD call in each week.

🌎 WORLD CB HAM RADIO NEWS & UPDATES ›

The Sound of Silence

The reality of the modern world with electronics is that we now have to live with more noise than we ever had to do before. A multitude of electronic devices have now entered homes everywhere and as a result we in the hobby are now the victims. Back when I got started in the hobby, I always had a fear of a bang on the door from a neighbour with the scream "you're all over my TV".

One of the lessons we learnt when doing our studying, was interference and how not to be an issue to anyone, we would be thought all about ferrite rings and how to coil coax for both radio and Television to hopefully eliminate noise and interference to other equipment.

But as the tech world has grown so has the noise level, from chargers to LED lights etc. we are now the victims of the electronic boom and as such we suffer from noise from all directions.

Atmospheric noise and even military signals as in radar etc. are now an issue in the hobby. Russia scanning the horizons has had a big effect on certain bands and even the solar cycle has it's own noise too.

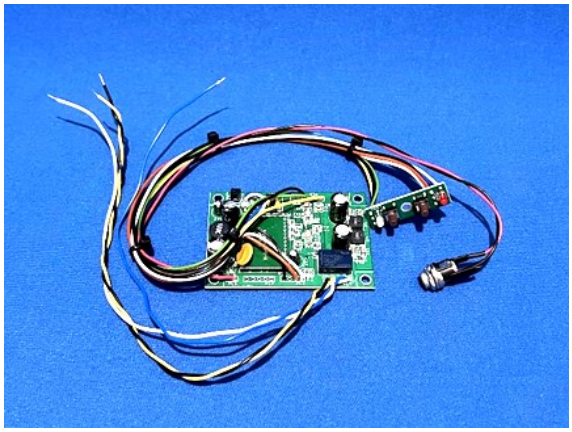
Being the owner of a FT101ZD for more years than I care to remember, one of the issues was how to reduce the noise level on the rig, it being 40yrs old it is limited in what it can do with noise compared to my ICOM 7600.

Reducing the RF gain, switching on the noise blanker to help get that faint signal out of the noise is more or less your limit.

So what else is available on the market that might help? I did ask around and between a loop antenna as a receive, was suggested as was a number of filtering devices.

I did as I said earlier not want to reduce the signal in to the transmitter if it was in the noise, I was going to kill it altogether.

While pondering on what I would do next I had bought an SP901 speaker for my radio of David EI6GVB, and mounted in the top of that speaker was a small circuit board with a socket for a power source and two little push buttons that when pressed changed the noise level.



This was a NEDSP1962-KBD and made by a company called BHI noise cancelling products. Who were they I'd never heard of them, but the filter was making a big difference to my noise, so off to google I went for more info.

BHI DSP noise cancellation products are designed to effectively reduce background noise and improve audio clarity. These products utilize digital signal processing technology to analyse and filter out unwanted noise, allowing for clearer communication and enhanced listening experiences.

The first thing that hit me was it was filtering the speaker and not connected between the antenna and radio, so input signal stayed the same you just filtered the sound.

Now the a NEDSP1962-KBD worked well but to some degree it was limited to what it can do. I have a hearing issue with 50% loss from being a fool and not wearing ear protection when I was younger and to top it off I have tinnitus in both ears at different frequency, so my hearing is somewhat challenging at times. I was delighted to see BHI had built a noise cancelling unit for operators with hearing issues.

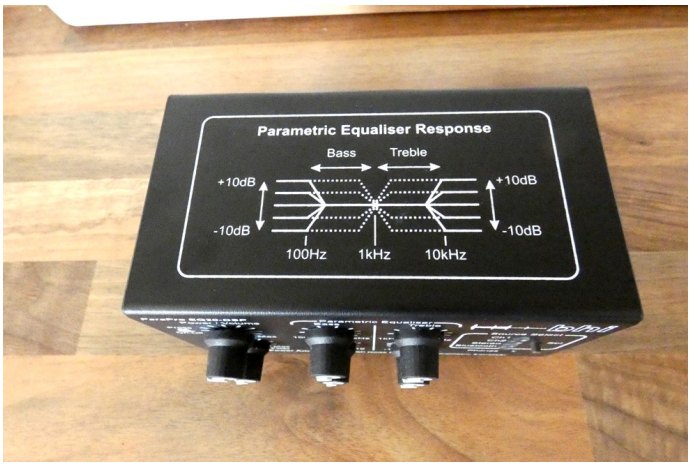
The ParaPro EQ20 Audio DSP may be just what I need so a purchase was made complete with a request to configure the colourful knobs with grey that way it was in keeping with the YAESU grey theme.

This is the standard Parapro with the colourful knobs and below is the customized unit that I had requested. I purchased the BHI power supply also; I do have the box full of old power supplies that we all have but I did not want to take a chance doing any damage to the unit.

I purchased the BHI power supply also; I do have the box full of old power supplies that we all have but I did not want to take a chance doing any damage to the unit.

The Sound of Silence

A full set of instructions came with the unit and the first thing to hit you is how light it is but the build quality takes your mind off its weight, great info on the front panel and a diagram on the top surface explaining what goes on in the unit



The rear panel is self-explanatory with power in and L/R speaker in mono or stereo inputs/outputs.

Each of the available modes can be accessed from the front panel and the unit can be adjusted to suit your hearing and noise reduction.

Dose it work...? In a nutshell, YES, they definitely work and if you want to see how well, then have a look at a few YouTube video's one of the tests done is on an ICOM 7300, which you would think wouldn't need any help, but as can be seen, totally changes the reception of a receiving station and can then be copied and added to your log.

So to price, there is an old saying (you will forget the price but never the quality), that applies to this BHI device current unit price is £339.95 then the power supply on top, but before you say WHAT !! it's worth every penny. No point having a Radio antenna that you can't hear, with the noise your gear could be worth 5k or more but in real terms it ain't worth a penny if you cant hear stations, and I don't mean our European cousins, I mean the stations out there looking for you.

I did lend it to a friend Eamo, EI7LC, with terrible noise problems and he was blown away and lost for words, and after 5mins, his shack had become a better place to be, rather than looking at a dial and wondering if there was a station he could hear and work.

So well done BHI on a great product.

John Tubritt - EI3HQB

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Tinkering With An Antenna

Dan Romanchik, KB6NU, is a long-time ham who has been writing about amateur radio for the past 20 years at KB6NU.Com. He is author of the No Nonsense amateur radio license study guides and teaches amateur radio classes around the U.S. He enjoys Parks on the Air when the weather is good, and when it's not so good, you'll find him on the CW portions of 30 meters, 40 meters, and 20 meters.

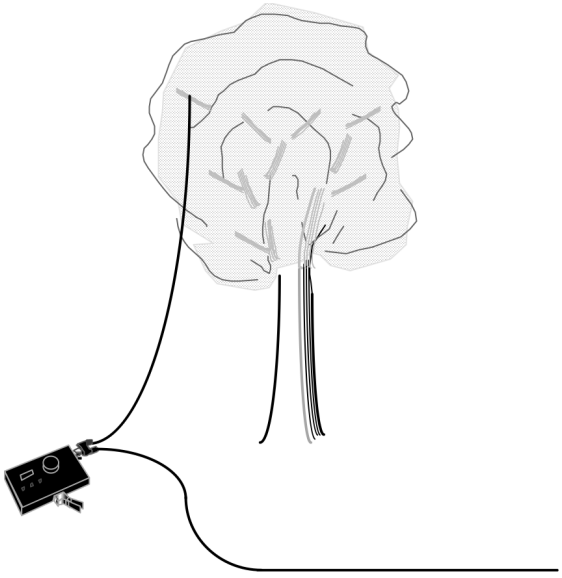
I don't know that I'd call Clay Mitchell, W8JNZ (SK), my mentor exactly, but I did look up to him, both as a ham and as a person. I'll always remember one thing that he told me. "Dan," he said, "one of the best ways to learn about something is to 'tinker' with it." He'd gotten this bit of advice from Dr. Richard Crane, W8CWN, who taught physics at the University of Michigan and was a well-known science educator and great tinkerer.

I applied this bit of wisdom to the antenna that I use for portable ops. It's nothing fancy, just a 66-ft. doublet but by tinkering with it over the years, it's a much better antenna than it was when I first built it.

It started with a KX1

It all started about 20 years ago when I decided that I wanted to operate portable and bought and built an Elecraft KX1 kit. Out of the box, the KX1 covers 40 meters and 20 meters, and you can buy an option to add 80 meters and 30 meters to the radio. I also purchased and built the optional automatic antenna tuner.

The user manual for the KX1 antenna tuner suggested using a wire antenna of 24 - 28 feet and one or more radials of at least 1/8-wavelength. It also suggests connecting these directly to the radio without a feed line. I cut four, 24-ft. lengths of wire from a spool of wire-wrap wire that I had scavenged from the dumpster of one of my employers, purchased a BNC-binding post adapter, connected the driven element to the red binding post and the three radials to the black binding post.



The KX1 Antenna

The tuner found a match for this antenna, but I was never really thrilled with the performance. I made some contacts, but with only 4 watts output, most of those contacts were a struggle. I struggled with this setup for a couple of years, but since I was really enjoying portable operation, I decided that some tinkering was in order.

A new antenna is born

in 2007, my 66-ft. doublet was born. Our club here in Ann Arbor, MI, ARROW, conducts mini-Field Days that we call AMP Team meetings every month. (AMP is short for ARROW Mobile and Portable.) We haul all kinds of radio gear out to a park and set up and operate. The gear you'll find at one of these events includes HF, VHF, UHF, and even some microwave gear. Some club members, for example, are experimenting with AREDN mesh networking, and these meetings are a good place to test out their nodes without having to worry if their node's antenna is line-of-sight with another node.

As I was contemplating what to use for an antenna for one of these outings, decided to try a 66-ft. doublet antenna. My thought was that the KX1 antenna tuner could probably tune it on any band 40 meters and higher.

I scanned the shelves in my shack for antenna-making materials. I still had a fair amount of wire-wrap wire that I could use for the antenna itself, but what to use for feed line? When my eyes lit on a spool of twisted-pair wire, I thought why not give that a try? I cut two 33-ft. lengths of wire-wrap wire for the antenna elements and one 33-ft. length of twisted-pair wire to use as feed line.

Rev. A of my POTA antenna used wire-wrap wire for the elements, a ceramic dog-bone insulator, and twisted-pair wire for the feed line.

As this was going to be an experimental antenna, I didn't care too much how kludgey the thing looked. For the centre insulator, I dug a ceramic dog bone insulator out of my box of antenna parts. To connect the feed line to the antenna elements, I used a couple of small wire nuts.

Cutting a 33-ft. length of wire for the feed line was actually a mistake. I figured that if I made the twisted pair feed line a half-wavelength long, then I'd have a relatively low impedance at the rig. Instead, in my haste, I cut it too short. 33 feet is only a quarter wavelength at 40 meters, which theoretically should have yielded a high impedance at the antenna input. In practice, however, the KX1

managed to tune that antenna and feed line on 40 meters and 20 meters just fine. That just goes to show how much I know.

To hang up the antenna, I made a small loop at the end of each wire, and to that I tied some mason twine. I threw that twine up into a tree using a weighted tennis ball, and pulled up the antenna. One problem with this approach is that I was never able to get the antenna up all that high. Sometimes the antenna was less than 15 feet off the ground.

Another problem is that it took a long time to do this. It takes time to get two lines up into trees, raise the antenna, then tie off the lines. Not to mention that you need two trees relative close to one another. Sometimes, I would set up this antenna as an inverted-V, but I still had to find an appropriate tree for this.

Enter the KX3

In 2015, I bought a used KX3. Being a KX1 user, I had subscribed to the Elecraft-KX mailing list, and when someone offered to sell a KX3 with antenna tuner for about $1,200, I jumped on it. At first, I had visions of outfitting with a PX3 band scope and some kind of amplifier to make a base station out of it, but when I found a good deal on a Flex 6400, I decided against that approach. The KX3 would be devoted to portable operation.

Because the KX3 antenna tuner has a wider range than the KX1 antenna tuner, I wasn't anticipating any problems with it tuning the doublet, and in fact, that was the case. The KX3 easily tunes the doublet on all bands between 40 meters and 10 meters.

POTA improvements

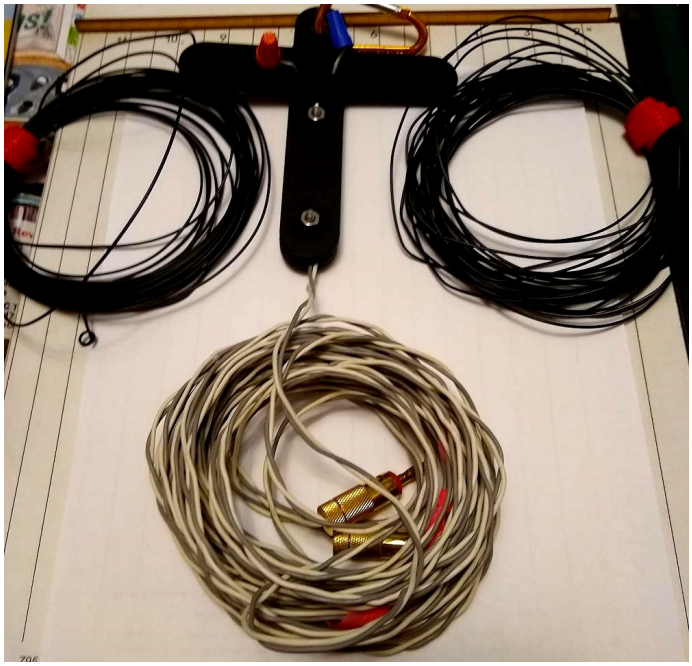
Improvements to the antenna accelerated once I started operating Parks on the Air (POTA). One of the first improvements was to purchase a 10-meter, telescoping, Spider-beam fiberglass mast. With the Spider beam mast, I no longer need to throw lines up into trees. I slide a small eyelet into the top section of the telescoping mast and attach the centre insulator of the antenna to the eyelet with a carabiner. I extend the mast and operate the doublet as an inverted V. No trees are needed.

To anchor the telescoping mast, I pound three garden stakes into the ground at 120-degree intervals around the mast, then put a strap around the stakes and mast to hold the mast upright. This arrangement is much easier to set up than others that I've seen that use ropes and tent stakes, and it is very stable. It's certainly stable enough for a two- or three-hour POTA activation.

To anchor the elements, I use two-pound exercise weights that I bought for a buck each at a local thrift shop. Using the weights, it's easy to extend the elements to whatever length I need quickly. Overall, setting up the antenna is very quick. I can be on the air within 20 minutes of arriving at the park.

The next improvement that I thought I'd make is to find a centre insulator that would provide better strain relief for the feed line. Searching the internet, I found a 3D-printed centre insulator by an eBay seller who calls himself "thecrazyham". He didn't have anything designed for a twisted-pair feed line, but I guessed that a centre insulator designed for 300 Ω twin lead would work just fine. It did work just fine, and as a bonus, it only cost five dollars!

After acquiring the new centre insulator, my friend, Rick, K8BMA gave me some 26-ga. Poly-STEALTH antenna wire. I cut two, 33-ft. lengths and connected them to the feed line with wire nuts again. I didn't have any trouble with the wire-wrap wire I was using, but this wire was made with antennas in mind. It's first-rate stuff. I don't think it works any better than the wire-wrap wire, but it coils up neatly and fits nicely into the small toolbox I use to carry around POTA station.



Rev. B of my POTA antenna uses Poly-STEALTH antenna wire and a 3D-printed centre insulator

A "real" feed line

Whenever I was asked about my POTA antenna, I would brag about the twisted-pair feed line. I was rather proud that I thought to use twisted-pair wire as a feed line, and that it actually worked. But, a couple of months ago, my friend Paul, KW1L, bought a Cobra antenna. Before putting it up at his house, he asked if we could take it on a POTA activation and try it out. I agreed, and one morning, we took it up to the Island Lake Recreation Area.

Band conditions were good that morning, but even so, it seemed like the antenna was performing at least a little better than my doublet. Paul said, "Well, sure, it's because the Cobra antenna has a real feed line."

So, I decided to try a "real feed line" on my doublet. It just so happened that I had a 100-ft. roll of 300 Ω twin-lead that I purchased at a dollar store many years ago. I cut off a 35-ft. hunk of it, soldered it to the antenna elements, and put some banana plugs on the other end of it.

After using this antenna for a couple of months now, I feel that I have to swallow my pride a little and say that the antenna with the 300 Ω feed line does work a little better than it did with the twisted-pair feed line. I'm guessing that it's because the twisted-pair feedline has a higher loss than the twin-lead.

My latest improvement is to use a 4:1 balun

Tinkering With An Antenna

Rev. C of my POTA antenna uses 300 Ω twin-lead for the feedline.

between the feedline and the antenna tuner. Until just recently, I was connecting the feedline directly to the KX3 antenna tuner, but the fellow who sells Cobra antennas recommends using a 4:1 balun, so I thought that doing so might improve my antenna's performance as well.

Several years ago, I purchased a couple of W1CG current balun kits at a Hamfest, and now was the time to build one. This is a really great kit, and if you ever see one at a Hamfest or wherever, buy it. The New Jersey QRP Club that sponsored this kit is now defunct (despite the website still being online), and the kits are no longer available. (I've been thinking about kitting up some and selling them, but that's a discussion for another day.) The instruction manual is still available, though, and it's not hard to find the parts.

If you're at all interested in baluns and how they work, you should download the instructions. They contain a great description of how baluns work and the difference between voltage baluns and current baluns.

At any rate, I built one of the kits and have started to use the balun on my POTA activations. I can't say for sure how much the balun has improved my results, but it certainly hasn't hurt them, so I'm going to continue to use it.

Tinkering gets results

If you take away only one thing from this article, take away the idea that tinkering with something gets results. The antenna that I'm using today is basically the same antenna that I built 20 years ago, but the tweaks that I've made have significantly improved its performance and its ease of use.

One final note: I recognize that much of my success is due to the magic of the Elecraft antenna tuner. I have used this antenna with other antenna tuners, including the inexpensive Z-match tuners you can get from Ali Express or Amazon. It should also work well with the Emtech ZM-2 antenna tuner.

If you purchase and tinker with this antenna and one of these tuners, please let me know how it works out for you.

Dan Romanchik, KB6NU

cwgeek@kb6nu.com

From Ship to Shore

My interest in shipping started during my secondary school days. My uncle oversaw a shipping Wharf in Waterford and, during that time, I had access to ship cargo/manifestos and schedules. I knew what was coming and going in the port around my area. I now needed to find out how to listen to the ship and pilot communications, Curiosity got to me. So off on a fact-finding cycle to a pilot station about an hour away at the harbour entrance. Wow, the excitement with all the traffic calling in - I was hooked.

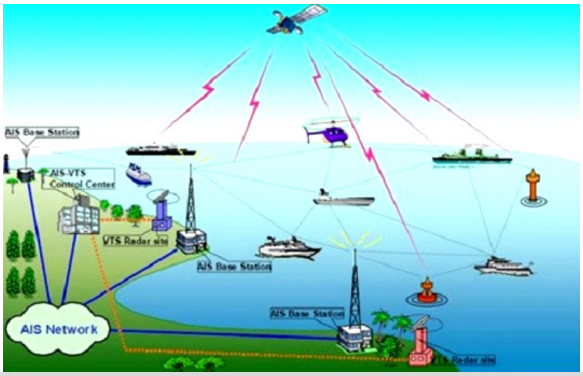
On a visit to my local bookshop, I came across a magazine called Shortwave Listener, which had information on scanners etc. A purchase was made of which scanner I do not remember at this stage. Back by the river I saw a Navy Ship anchored, a quick cycle home to get my scanner and aerial my father had spare with coax attached.

So on site, aerial connected loosely with a centre pin held into scanner socket, scanner set to search frequencies, as the aerial was pointed at the navy ship. Wow Excitement speech heard, omg I was receiving a two way onboard chat. As I learned after it was the national TV station that I had received.

Today's Marine Communications has changed a lot since, with ship tracking by Sat and Land station by Automatic identification system known as A.I.S. this can be observed from a few websites, one of which is https://www.marinetraffic.com/

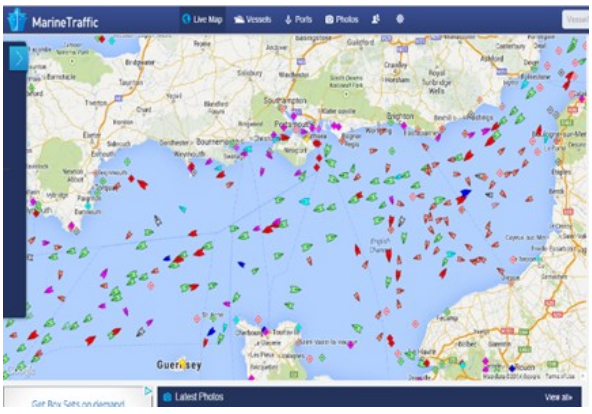
A Lot of people worldwide host a receiving station like myself via VHF aerial and raspberry pi to feed the service and receive free perks and free access.

It can also be received by mobile/pc free with a small delay. VHF Radio is used for Port operations and short-range comms for line of sight mostly. In Europe it is in the range of 156 to 163 MHz, split into channels some simplex others duplex, with certain allocation for SAR, port, marinas, pilots etc.

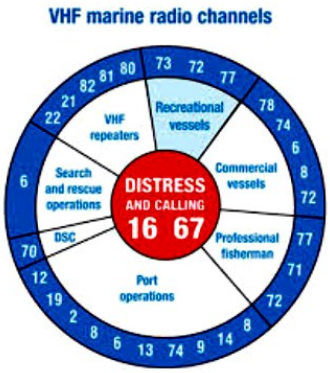


H.F. This range is used for long range communication and long-range SAR search and rescue, and some can be still heard on 2.182 MHz etc. Navtex is a broadcast of navigation warnings from worldwide Coast stations at certain time slots as allocated. These would be in printed form on a ship, but you can get free decoders online and tune to 490 KHz or 519 KHz, for ice warnings plus worldwide distress and warnings to navigation, maybe overboard containers or incident fax mainly weather reports, but not so much now with onboard internet and computers for weather tracking live and onboard satellite calls and tracking. DSC Digital selective calling, this is allocated a vhf channel, and the unit has a distress button with a cover over it.

If it is opened and pressed, it sends a signal and GPS location, time and vessel identification number as issued to all ships, and can be seen mostly on ship sterns or bridge. (I.M.O. "international maritime organization") to rescue centres via a group of special satellites specially for Search and Rescue called the GMDSS services, which relay the distress to ground stations and ships in the area until acknowledged.



As you can see from the tracking site we have a lot of ships moving around the planet this is just a screen shot of the English channel on any given day I have included a link you can have a look at the global situation. https://www.marinetraffic.com/en/ais/home/centerx:30.2/centery:8.1/zoom:2



Please send us in your stories you may have about shipping id love to read them

Philip EI-1722. SWL

The Nervous Novices CW Net

Eamonn joined the National Short Wave Listeners Club in October of 2021. He sat his Morse test the following April and obtained his Class 1 call sign in July 2022. He made his first CW QSO in September 2022 using vice grips and two pieces of wire before graduating to a dual paddle. His job is as a Healthcare Assistant, appropriately enough working in a radiology department, and his other hobbies include sailing, gardening, music and telling terrible jokes.

The idea for the Nervous Novices came about one night in January 2023 while I was enrolled in a CW Academy intermediate class under the tutelage of Bob Carter WR7Q. One night, after class, two of my classmates, Simon G0FOZ and John M0HFH, decided to put some of their developing CW skills into practice.

They quickly found out that they weren't able to hear each other at all. This all took place on 80m. They both live in the southwestern UK, but evidently not close enough for the groundwave to connect them. I, being in EI, was able to hear them perfectly, and gave them SWL reports via the Discord group chat we had set up as a class. After a few minutes of "NIL CPI DE G0FOZ" and "NIL CPI DE M0HFH" I decided it was time for an intervention. "BK DE EI7LC".

From there, we were off, with the guys still unable to hear each other and me relaying info back and forth between them. It made for excellent copy practice, and for my part I came away delighted with the poor propagation (now there's a statement you don't hear every day!) and the opportunity to act as the man-in-the-middle. It was also my first experience of a CW QSO with more than one other station, and I was absolutely buzzed by the experience. It was a big thrill for me. Not quite as exciting as my first ever QSO on the key, but I remember well the smile on my face afterwards. I wasted no time putting the word out on our CWA group Discord server that the Nervous Novices CW Net would be QRV somewhere around 3.555MHz (the QRS centre of activity on the 80m band) at 2030Z on the following night, 25th January for QRS net operation.

When all else fails tapping two wires together will enable a CW QSO

Nervous Novices CW NET
Wednesday Evening
20.30 UTC
Listen out for CQ "NNCW"
The speed is the Net is the speed of the slowest operator
Net Controler Eamo EI7LC
Freq is 3.555 +/- So call in and say hello

I borrowed the name from some sailing friends in the Galway Bay Sailing Club, a group of inexperienced boat owners who often sailed in company together and called themselves the Nervous Novices? I also put out a shout on the Slow Morse Club group chat on the Signal platform. For anyone who doesn't know about the SLOW MORSE CLUB, it's a fantastic resource for learning the art of CW (or as my friend Keith EI5KJ, one of my tutors from the NSWLC, likes to call it "The Civilized Way of communication". They have a very active group chat and sked board on the Signal IM platform, as well as on the Facebook platform. For anyone who wants to take up CW I couldn't recommend this group enough.

At this point I feel I should also give credit to the National Short Wave Listeners Club. Without the club I wouldn't have obtained my license, and special thanks go to Keith EI5KJ, whose enthusiasm for the code prompted me to make my first CW QSO before I thought I was ready, along with Rafal EI6LA and Megan EI5LA, both of whom set a great example as newly licensed, avid CW ops. It is also to my lasting joy that I was allowed the first activation of our club call sign, EI0SWL, as Net Control Station of the Nervous Novices.

While this was going on, I started looking into the topic in more depth. I searched for QRS CW Nets taking place in Europe/Ireland/UK, and the only ones I was able to find any info about were the Essex CW Club nets. As a parent of two small children, my time isn't always my own, and they clashed with my schedule so there was no chance of joining in. I also read about the ARRL Traffic Nets, finding out what I could about them from various websites and videos on YouTube. Of course, there was no point in joining in due to the legalities of using the amateur bands to exchange third-party traffic outside of North America but did make for interesting reading.

The more I read about these CW Nets, the more I realised I'd really like to take part in one, so I started researching how things were done. In the ARRL Nets they use "QN" codes to run their nets, for example "QNI" is the invitation for stations to check in, "QND" to say the net is directed, "QNN" for the callsign of the Net Control Station "QNN EI7LC" for instance) and "QNZ" as an instruction tOo zero beat to the NET CONTROL STATION. Too Much! I knew that running a net like this would require enough concentration as it is without having to learn a bunch of new Q-Signals. Why use "QNI" when a simple "CQ" or "QRZ" would suffice?

I toyed with the idea of using "QRY" numbers for participants in the net. At the time I didn't know what "QRY" was, and when I presented the idea of assigning serial numbers to callers, there ensued a heated discussion on whether it was correct procedure for a station to use anything other than the full call sign. I must admit that I misunderstood the concept of serial numbers, and I was uncertain whether it was correct

The Nervous Novices CW Net

A Classic Walters Electrical: British Post Office Key

procedure for the amateur bands, along with the fact that it might just cause unnecessary confusion to operators (the Nervous Novices CW is a beginner's net, after all). I quietly dropped the idea and settled on the old-fashioned way of using full callsigns. It's proven to be a good decision. Notwithstanding this, as even the best op knows, poor band conditions can make it difficult to keep up sometimes.

So, our first outing took place on the 25th of January, with four stations "in net", including myself as NET CONTROL STATION. Simon G0FOZ and I had, by this time, become quite good friends over the duration of the CW Association course, regularly arranging skeds over the Discord server. We had started sending each other jokes as practice for copying, terrible jokes but great practice! I had announced the net on the Slow Morse Club, as well as in our class chat and from my Mastodon social media account: (@eamoEI7LC@mastodon.radio). The net lasted well over an hour and as has since become customary in the NNCW net, we finished with a joke. Everyone in the group was able to QSO everyone else which made the net a success.

I've learned a lot from running this net, I've made new friends, I've done a lot of second-guessing. "Am I doing it right?", Am I wasting my time doing this?" "Does it actually serve any purpose to the amateur radio community?". I reached out to seasoned CW operators, ex-military operators, ex-Radio Operators and longtime amateur ops and have been greatly encouraged by the feedback. I've found that the net needs to be quite formal in its structure. This is by necessity. The aim of the Nervous Novices is to help people learn CW, and people learning are going to make mistakes. It provides a safe space for people to learn, to make their mistakes without any pressure, and to improve their Morse. QRS is the order of the day. 12wpm is the starting speed, and any request to "PSE QRS" will be acted on.

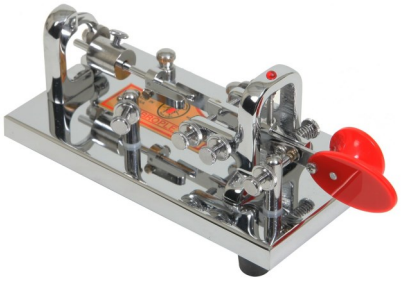
As a directed net, all traffic goes through Net Control Station. This wasn't initially planned, nor is it a hard and fast rule, rather something that evolved organically. It makes more work for Net Control Station, but it does work. Net control will usually find a QRG about 15 minutes before the start time and put out an unqualified CQ. Usually, I'll get a response. Most callers are happy to QRS to match the NET CONTROL STATION, and I'll invite them to join the net. Some do, which is always a pleasure.

At 2030 (or as close as possible) Net Control Station starts calling "CQ CQ CQ NERVOUS NOVICES QRS CW NET CQ CQ CQ NNCW DE EI7LC (or whoever Net Control Station is for the night)" As calls come in, I'll add them to the list and to my logging program, then invite them to give reports. Once all stations have checked in and swapped reports with Net Control Station, I'll start working down the list. I don't pass the key to a station with the freedom to call whomever they want. Instead, all QSOs take place at the direction of the NET CONTROL STATION. The way we do this can sometimes be a source of confusion to first timers, but with careful listening it does make sense. For instance, NET CONTROL STATION (EI7LC) wants a station (here's EI5KJ at top of the list) to give an RST to a particular station (let's use G0FOZ as an example): "... EI5KJ EI5KJ PSE QSO G0FOZ DE EI7LC KN"

Confusion could occur because if G0FOZ was sleepwalking he might have just caught the ending "...G0FOZ DE EI7LC KN" and assumed the Net Control Station had just invited him in for an over, whereas in reality, Net Control Station has already addressed EI5KJ and invited him to report on G0FOZ. When EI5KJ has passed his info, he can hand back to Net Control Station for them to call G0FOZ, or he can address G0FOZ directly. It's not necessary for the two stations to go through Net Control Station but it seems to be the way it's evolved. I guess they like to keep me on my toes as well. It's all good practice, and as I said earlier, it's important to try and make sure every station on the net has exchanged a report with every other station. So far, we've succeeded in this.

I always come away from the NNCW knowing that I'm guaranteed a good night's sleep. The nets usually last for about two hours and finish with the by now obligatory joke. Two hours is a lot of morse code and it's natural for people to want to take time out and sit on the side as well, which is perfectly ok. I thoroughly enjoy running this net and come away every Wednesday night with a feeling of immense satisfaction. Numbers usually run from about four to six stations calling in, with the most we ever had being eight. I slept really well that night!

We're QRV every Wednesday night at 2030 local time. We're on 40m during the Daylight Savings portion of the year, and once the clocks fall back, we'll also fall back to 80m. I'll usually announce the QRG on Wednesday evening in the SLOW MORSE CLUB, and from there the sked info is relayed to the SLOW MORSE CLUB Facebook page.



Vibroplex Semi-Automatic Key

All ops are welcome, with QRS to the slowest on frequency being the order of the day. SWL reports are also welcome via WhatsApp or text to 086-6890087. Net Control will do their best to give a shout out to the SWLs. Try to see if you can catch your name on the air. Please come and join us for a night of no Pressure QRS Morse Code, with added bad jokes. We'd love to hear from you.

Eamon Gannon EI7LC
ei7lc@proton.me

Cheap Enough to Try

What is amateur radio?

A very hard question to generalise as there are so many aspects to this hobby that you can't possibly cover them all with a quick answer, there are also different ways to approach the way we want to enjoy this hobby we can be as relaxed or involved and spend as little or as much as we see fit and each to their own after all it is only a hobby.

One part of amateur radio is LEO (low earth orbit) satellites. We can follow them across the sky and try to make contact through them in various modes. There are a lot of factors to consider in making a QSO (contact) through a LEO satellite there is also the Doppler (Rotation of the satellite) effect of the signal being transmitted and received.

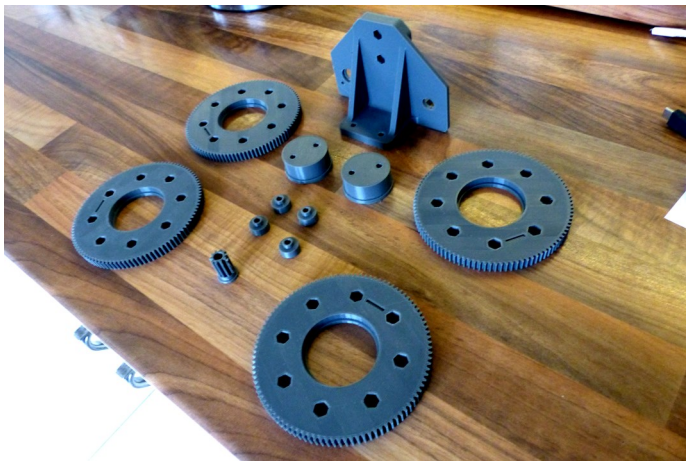
The speed of the satellite and trajectory across the sky are big factors in how good and how long contacts can be made, as they are only accessible in line of sight so really horizon to horizon. The type of radio and antenna used all add to the ease of the operation, so as much automation we can add into the equation the easier it becomes to attempt a QSO.

One item to help automate and make tracking the satellites a lot easier is the AZ-EL rotator. This gives us horizontal movement from left to right and elevated from horizontal to 90deg doing a bit of research. The thing that put me off attempting this part of the hobby was the price of the AZ-EL commercial unit.

I didn't want to spend all that money on an item that, if I used it once and didn't enjoy this part of the hobby, it's a complete waste of money which brings me to my project, was to possibly build my own AZ-EL unit using a 3D printer that I had. John EI3HQB had sent me files from a post he had seen on http://www.hybridpretender.nl/az-el.html that would allow me to 3D print the required gears myself other metal fabrication I could make at work, all the files are free to download and needed minimal parts to get it operational.

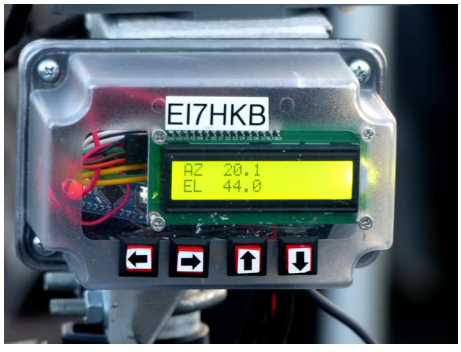
I set up the 3d printer (I borrowed from a friend wink-wink) and I set about printing all the parts needed to assemble. As this was going to take a while, I got onto ordering the other essentials from AliExpress (low RPM motors) and I only waited 2 weeks for all the parts to arrive. I started on some of the metal fabrication (aluminium) from the work scrap off cut bin. (Companies that use aluminium always have a scrap bin and are only too happy to let you take pieces away so make a point of this with any project requiring small pieces) so I got a work colleague to make up an angled bracket so I can attach a boom to fit a 2m and a 70cm Yagi at either end. Again, the antenna to be used would be home brew and as light weight as possible.

At this point I have had so much enjoyment making something from nothing and this is what I like about this hobby, building items and then seeing if all the work you have put into the projects was not in vain.



All components fabricated using a 3D Printer

Once all the gears and metal fabrication were complete and doing what I assume it will be doing I turned my attention to the electronic side of the project, wiring up the low RPM motors and checking they worked in forward motion and in reverse while against the gears, any alignment that was needed could then be carried out.



The main controller is an Arduino Nano this needed software to be installed (will be in Pt 2 in next Magazine) Putting the software onto the Arduino nano was a first for me and seemed to go well and at this point I was very happy with myself that I had come this far and no issues, but alas that's where I had a problem.

Cheap Enough to Try

Luckily, I have a few friends, and one is very well into all these Arduinos and Raspberry Pi's etc. so a quick call to him and he said come over and let's have a play. I was delighted when I turned up and he saw for the first time what I had created. He was very impressed to a point that he's going to print a few of these off and use them for other projects.

The 3D Printed gears and electric motors in situe

The long and the short of the programming of the Arduino nano is that the coding didn't align up with what I had printed so all the values and calculations were way off. After a complete program rewrite, we powered up the unit and it operated in a flawless manor. It was alive and now we are both jumping around like kids so happy with all that has been achieved.

Our club Collective Communication EI3CC had planned a Satellite weekend where we would for the first time use QO-100 system and the LEO satellites, so everything was packed into my van and off we went to meet with EI3CC club members and going off the response to the club posts about the weekend event it was going to be very busy.

We had arrived on Friday afternoon for the weekend event so we set up a table for the laptop and radio etc. then we assembled the antenna on a horizontal boom an 8 element 70cm at one end and a 4 element 2m beam at the other, this then needed balancing as it was the first real test of antenna/boom on the AZ-EL unit.

The program Satpc was the software being used and available from dk1tb.de/indexeng.htm this software will allow the Arduino nano communicate with each other while Satpc tracks the satellite's and then adjust the antenna to the assigned craft you have chosen. On starting up the antenna and laptop it became apparent I had an issue whereby the laptop would not play ball with the Arduino no matter what I did I was getting nowhere fatigue was setting in and we would be losing the light as well in time.

As luck happens, one of the club members John, EI7IG, had made a call on his phone to see if we needed anything bring to the location as it is along the coastal cliff road and nearest shop is 7 miles away. Nothing was needed but we did explain that we had issues with software, john was soon with us and as they say two heads are better than one so myself and john reviewed the software and in no time the antenna burst into life and locked on to a satellite we had picked from a list of passing craft, once locked on the craft it then preceded to follow the Sat and adjust the antenna elevation to the required degrees needed

The AZ-EL Rotator with control unit fixed on the left hand side

All in all, I only spent €45.00 total on making this wonderful piece of kit. Do I enjoy this part of the hobby ..... Yes I do and even more so that I had so much fun making the whole thing from start to finish and it didn't cost an arm and a leg to get here. Had it gone the other way and I didn't enjoy this part of the hobby .... oh who am I kidding I enjoy it all but at least I didn't find out the expensive way that I enjoy this part.

Now I can hopefully look forward to Santa bringing me a much more robust one for Christmas.

Check out our club EI3CC YouTube channel to see the finished item in use:

https://studio.youtube.com/channel/UC1A1qJM-kdhq-cKiHV6zu0A/videos/upload?filter=%5B%5D&sort=%7B%22columnType%22%3A%22date%22%2C%22sortOrder%22%3A%22DESCENDING%22%7D

Wayne Lewis - EI7HKB

wright14@gmail.com

Greetings From the Kernow Shed of Build (KSOB)

I have a shed in the garden to which upon where I produce my antenna farm, be it at home at the stations address or go out portable with. Even now via MCP Motor Cycle Portable (MCP) set up this year.

Whilst Radio Hams of long ago, had no shops, no internet and the beginnings of mail order through magazines. They still had to build their own gear from the radio and supply to the means of getting it to the antenna and build antenna itself. This is what it is all about as many of us don't have the money to go buy direct, even if I did, I rather get me hands dirty and make my own gear from Antennas to means of getting them up in air to devices that will rotate the beams and control that bit also.

A little history on how it started back in the late 90's being on the so called naughty band prior to getting licensed in 2002. The first build was the Inverted-Vee centre fed tuned as after hearing about how to overcome terrain and improve your signals to local mates from over hill couple miles away to further field. Provided the said stations did the same and the difference from our verticals to simple Inverted-Vees was amazing from some barely being heard to S9 signals. It did not stop there with help from an Italian gent, I built myself a short 4 element Yagi for the band and it worked a treat. BUT duly noted was no increase in input power required. The antenna did that for you, BUT in both directions of RX and TX. This was the beginning of my antenna building history.

I was first licensed in Suffolk in 2002, using a G5RV bent around the garden, it did the job for a number of years and had an off period from 2006 till about 2012 when I moved and reset up in Cornwall and slapped up the old G5RV I brought with me.

But the passion to make my 10W work for its life or as I say ,throttle the crap out of it, has found it a very noisy antenna. Till such time that I built a FULL WAVE Horizontal 40m loop with Q-stub made from RG6 coax and noise floor fell by half and certainly was putting out better signals across the bands from 160 to 6m with the aid of a MFJ949D.

So the drive not to increase output from the TX but to make antennas that would improve my outgoing and incoming signals, being licence restricted to 10w and nowadays 90w, and over past 10 years they have gone from strength to strength mainly to do with portable at first with end fed wires to more complex beams for the VHF and UHF bands and now Mag loops for the smaller gardens for those who just don't have the room but will get you on air. But it's not all about having antennas. It's about how you put them up and in my case rotates them with my HB remote rotation unit and small amount of engineering to hold the 12m steel telescopic pole in place etc.

Fred with my 20m Copper tube 2mm Mag loop with trombone slider cap / tune.

The build of such antennas is not that difficult with help from on Line calculators from loading coils to the Quad calculators or Quagi calculators etc. First things first, to get around building antennas, first of all why do you want to do this, what bands of band you want it for. Again main reason to increase signals in and out and may be to become more directional as found out with the Mag loops and the 10m Moxon in compare to me 40m FW Horizontal loop I have.

The biggest gain I have found is with my latest Build - the 11 Element Octa-quad for 2 metres SSB using Ali elements in a Octagon shaped 11 Elements over my old 2m 9-element Quagi and, being a Full wave antenna over the 1/2w Quagi, it helped me reach into Scotland for first time with only 50w on my 2E licence I currently run. This March reach a HB9 station on SBB at 902Km on Es was even more amazing.

This only a taste of what I have done and I am willing to share more with the rest of the Ham community.

Karl Kruger 2E0FEH
freebirds658@aol.com

If At First You Don't Succeed ….

My Name is Jamie Daly, and you may remember my article in the July 2023 edition of Ham Radio Ireland. My article was written in desperation having sat the examination several times with much frustration due to my learning difficulties. I have a passion for radio, and I did not give up as I wanted so much to be part of the hobby. I was a Shortwave Listener for a long time and a regular CB operator with the callsign 29 KPI 100.

CB radio really magnified my interest in radio as I was able to chat with local operators and people all over the world. I also tried out PMR 446 radios. I suspect many currently licenced operators would have come into the hobby via CB radio from day one. I joined Zoom classes with NSWLC during the COVID lockdown and continued up to November 2024 when I passed the Amateur Station Licence examination.

Indeed, I did fail the exam five times, but I was not going to let it beat me. It was not that I hadn't got the knowledge, but more interpreting the question and ticking the right box on the paper. Sadly, there was nothing really in place for candidates with learning difficulties. Each time I learned a little more about the exams, and on the 6th occasion Bingo! I passed! I couldn't get onto ComReg quick enough to obtain my licence. Within 24 hours I got my Callsign EI5JLB.

I must say it was a gamechanger for me. My perseverance paid off! I wasted no time setting up the station. I was fortunate to have won a total of six transceivers in draws on Facebook, and these are the basis of my present station. My favourite transceiver is the FT-450. I use an End Fed Half Wave antenna in an Inverted-Vee configuration so I can work all the HF bands. I must say that it was great to be working on the Amateur Bands. Steve, EI5DD was my first contact on 40 metres. At long last I was part of the Hobby.

I was delighted to have the opportunity to appear on the Joe Duffy show on RTE Radio 1. Joe called me following his reading of my article in Ham Radio Ireland Magazine. His interview was about hobbies, and I got an opportunity to give my take on Amateur Radio and my difficult path to achieving the Licence. I went well for me.

There was a major downside to the story. Somebody has taken it upon themself to jam me anytime I operate on 40 and 80 metres. When I went on the Southern Ireland Repeater Network, the jamming continued there as well. Unfortunately reporting it to the National Society and the Repeater Keepers did not solve the problem as there was little, they could do to help. In desperation I reported it to ComReg who did intervene, but the jamming still occurs. I only hope it is not a Licenced Amateur that is involved as this really is not in the true spirit of Amateur Radio.

Despite the setbacks, I continue to operate and work plenty of DX on 20 metres and above. I will not allow anything to spoil the hobby for me. I go on air most days of the week and must have made well over 680 contacts since I was licenced in November 2024. I enjoy contacts on 40 metres and occasionally on 80 metres as well. To date, I have 60 countries worked and I am receiving regular confirmations of my contacts via eQSL. I really enjoy the hobby, and it has been worth the effort, dedication, and heartache to finally succeed.

I still operate CB as I would not turn my back on this area as it was where my interest in radio started. It is strange that. on many occasions, there is more activity on 11 metres than on 10 metres. I guess the CB guys are always monitoring for the band conditions to improve and jump in at the first sign of the band opening

I thank John Tubritt, EI3HQB, and the members of EI3CC for their assistance and encouragement and not forgetting my long suffering XYL, Janice, for her encouragement. There were many others locally and around the country who offered advice and encouragement over the years, and this was a great incentive to continue. I thank Steve, EI5DD, for his help compiling and editing my article and his continued support.

As I will always say,
If at first you don't succeed try, try again!
Don't give up!

I am on Social Media:
Tic Tok - Clonmel Amateur Radio
Facebook- Jamie Daly

Jamie Daly - EI5JLB
dalyjamie053@gmail.com

International Marconi Day

International Marconi Day (IMD) is an annual 24-hour amateur radio event held to honour Guglielmo Marconi's contributions to wireless communication. Organised by the Cornish Radio Amateur Club (GX4CRC), it takes place each year on the Saturday closest to Marconi's birthday, April 25. In 2025, IMD will be celebrated on Saturday, April 26, 2025.

During IMD, amateur radio enthusiasts worldwide operate from historic sites linked to Marconi's work, aiming to contact each other using techniques reminiscent of those Marconi employed. The event runs **from 00:00 UTC to 23:59 UTC,** and participating stations often register in advance. Registration details: http://gx4crc.com/imd/imd-registration/ A High quality certificate is available to qualifying stations.

The Certificates are of a very high quality and are well worth obtaining to display on the wall of any Shack. They are based on an original Marconi Stock Certificate Circa 1901.

Once linked into the site, the International Marconi tab at the top of the page will reveal the current stations registered for the event.

Categories

There are two categories of operation

Transmitting Amateur

Establish direct two way communication with 15 different official Award Stations, mixed modes are permitted in the log CW, Voice or Data.

Shortwave listener

To log two way communications made by 15 different official Award Station, Mixed modes permitted in the log CW Voice or Data.

Participating in IMD offers a unique opportunity to connect with amateur radio operators worldwide and to celebrate the legacy of Guglielmo Marconi, a pioneer in wireless communication.

Brief History

Whilst Marconi's history is widely documented the timeline of his achievements is as follows:

Initial experiments were conducted by Heinrich Hertz who managed to transmit a signal across a short distance in his laboratory in 1888. Several other European researchers investigated this new phenomenon also. Marconi could see the wider picture and conducted his experiments outside of the Laboratory.

In 1895 he managed to transmit a signal just over 2 Kms despite an obstacle between his transmitter and receiver.

Following little interest from the Italian government, Marconi travelled to England in 1896 with the support of relatives on his mother's side. They were in fact the owners of the thriving Jameson Distillery. Much time was spent establishing Patents for his work .

In 1898. Marconi established his equipment on a tugboat in Kingstown, now Dun Laoghaire, to monitor the progress of the yacht races at the Kingstown Regatta. During this event he transmitted over 700 messages over distances of 16 to 40Km.

Research and development continued into the tuning of equipment as more than one transmission at a time would result in interference so it would be necessary to find a way of separating the transmissions.

In 1899 he achieved a transmission of 50Km across the channel. Then in 1899 100km was achieved between equipment installed on the Liner, St Paul and the Needles station in the Isle of Wight. Marconi managed to triple this distance from his station at Poldhu, on the Lizard peninsula in Cornwall to the Crookhaven station at the Southwest tip of Ireland.

It was from Poldhu, Cornwall, that his breakthrough occurred when the first transatlantic signal, the pre-arranged letter "S" was received in St John's, Newfoundland over some 2880Km. His antenna was held aloft by kites on this occasion.

Before the invention of radiotelegraphy ships were isolated at sea. The first fundamental use of Marconi's invention was at sea. Marconi Radio Officers first went to sea in merchant ships in 1900 and for almost a century they provided the vital link between ship and shore.

References

http://gx4crc.com/imd/marconi/
http://clifdenheritage.org/the-marconi-story/

Steve Wright - EI5DD
wright14@gmail.com

The Pros and cons of having a Hex-Beam

After obtaining my Amateur Radio license in 1995 and having many HF antennas over the years, some were self-built and others "self-bought". The last self-built was a Cubical Quad, a Quad I had always been a fan of. However, when the first storm passed, it was immediately over and out with my self-built Quad. In the mean-time, after reading some reviews, I had my eye on the Hex- Beam.

At the time, the Hex- Beam from the late Waldi SP7IDX, a Polish manufacturer who put his heart and soul into making the Hex- Beam, was very well regarded. In 2020 the time had finally come and I bought my first SP7IDX Hex-Beam. There is a short video on YouTube of when I assembled the antenna https://youtu.be/-e41CU2C9JA?si=0t3loVeUgJ3aYDsX

Assembling a Hex-Beam is actually surprisingly easy.

Although you are a bit shocked by the size when the thing is lying next to you on the ground, it is really quite large. But on the other hand, in comparison it is very light in weight, and you can easily lift the antenna with one hand. That is precisely the advantage of a Hex-Beam by mainly consisting of wires, which makes the Hex extremely light and especially very wind-resistant, as it turns out. When it storms, the arms move gracefully in the wind. When I bought it, I had decided that if my Hex survived 3 years, I would be satisfied. In the meantime, my Hex-Beam has been there for almost 5 years and it is still in top condition.

As for the transmission and reception results of a Hex-Beam, one word... wow. Never have I had a better antenna than the Hex-Beam. Delivering excellent gain and directivity. The front-to-back ratio is impressive, allowing for effective rejection of unwanted signals, which is crucial in areas with high interference. Its directional nature provides the ability to focus on specific regions, enhancing signal clarity and making DX operations more efficient. Of course, it is and remains a 2-element antenna, but the performance is unmatched for a 2 elm. The Hex-Beam offers a low SWR (standing- wave ratio) across all the 6-10-12-15-17-20 metre bands, reducing the need for constant adjustments and ensuring efficient power transfer. This makes it an ideal choice for those looking for minimal tuning hassles while operating.

It is an antenna that I recommend, at least if you have the space for it and the neighbours do not look too strangely at this odd-shaped thing. The next antenna at the ON7FD home will undoubtedly remain a Hex-Beam.

If I had to name a disadvantage, it would be the Hex-Beam spreader arms. After years of use, the UV rays from the sun can make the arms brittle. For this reason, I immediately provided the arms with a UV-resistant coating

The Pros and cons of having a Hex-Beam

when assembling them, which I highly recommended.

I wanted to place the Hex-Beam on my tiltable antenna mast, which originally served as a street lamp post, properly. As a result, I looked for a strong cage to place the rotor in, which I found at EI3HQB. You can also see that placement on YouTube https://youtu.be/m2nFLSbMN1Y?si=Y_sSkDL3wT1g4wr5

Due to its size, it may be less convenient to get this antenna in the right place, but once it is there, the fun can begin. Requires a heavy-duty mast or suitable support structure for deployment. ideal height is around 10m (32 feet). Also know that if you have a tiltable antenna mast, you cannot place the mast completely horizontally due to the size of the Hex and you will need a support on which the mast can rest, as shown in the YouTube video.

Another advantage is that with the Hex you immediately have a multiband antenna in your possession, HF 6-10-12-15-17-20 Metres. For the low bands 40 - 80 Metres I use a

Fritzel FD4 wire antenna of German make.

For the DIY (do-it-yourself) HAM, this antenna is really easy to homebrew. Overall, a Hex- Beam is a fantastic choice, a high-performance antenna designed for amateur radio enthusiasts who prioritize portability, ease of setup, and effective signal performance.

Filip, ON7FD
www.on7fd.radio

Hillwalking Radio Club - Co. Limerick St Patrick's Day

A few pictures of the Hillwalking Radio Club n the town of Hospital Co. Limerick for St Patricks Day with the South Limerick Red Cross

St Patricks Day Parade - Tramore 2025

One thing we at EI3CC have always said is get involved in your community this is a great way of letting people know that as a club you exist and a great way of getting people into your hobby.

The 17 march in Ireland is the national saints day (St Patrick) and it is also a national holiday, St Patrick it is sent all the snakes out of Ireland many towns and city's around Ireland have a Parade as part of the celebrations.

Youth clubs scouting groups etc. take great pride in the parades as do local businesses so many a good Float or mobile displays are entered in the parade, some have a prize for best the display which in our case EI3CC we won in 2023.

The greatest thing about the parades is the community spirit where all the locals get involved and get out and fully support the parade, so this is as I said the reason radio clubs should be involved in community events.

St Patricks Day Parade - Tramore 2025

This year, took along our RCU as we call it (radio control unit) this is a fully equipped radio station that can be up and running in 30mins and has full solar support for the battery system as can be seen it is adorned in our national colours and club logo's so it is easy to pick out in the crowds, we arrive one hour before the parade starts and set about getting our club flags up on the poles (we are noted for flying the flag for our hobby) we then have various trims that go on the towing vehicle and by no means least our St Patrick day mascot Shannon our Irish Setter dog who loves the trip in the land rover.

One thing with the flags in a big crowd they can be seen from a distance and pull in the onlooking eyes to see what's below them, the parade takes about one hour and thirty minutes and at the end of the parade we would then go down to the seafront and set up the station.

We get many visitors to the unit wondering what we are doing we explain the hobby to them and many climb abord and have a go on the radio and even try sending CW with a selection of keys.

So we have 2025 St Patrick's Day logged and hopefully we may get someone who will go on and get a license who knows.?

As we say in Ireland, "you have to be in to win" so go get involved in community events and let people know they have a radio club.

John Tubritt - EI3HQB

ei3hqb@gmail.com

A Tribute to Jim Smith EI4CP (Silent Key)

Jim spent most of his working life in the Electricity Supply Board. He started in the technical computing group there and went on to other IT positions. In 1989 the ESB appointed him to be its first computer security manager. This role required to him to track international developments in online security – a need that led him to become an early internet user.

Jim was a true gentleman, and always a very good friend. Jim frequently travelled to participate in many events and Radio Rallies and socialise with friends and radio operators around the country.

Jim passed away at his home in Delgany on the 9th December 2024 sadly missed by family and friends.

With kind permission from his family we reproduce Jim's personal biography of his life and career.

Amateur radio came first. I was licensed by the Department of Posts and Telegraphs as an amateur radio experimenter back in 1974 – the year before I went to Trinity to study engineering. I took some computer science courses there – I recall writing a traffic lights simulator in PL/1 for one project – but I concentrated mainly on electronic and electrical engineering, graduating as an engineer in 1979. Later on however, I became a pioneer in the cyber security world instead of engineering.

The ESB hired me as an engineer in 1979. I worked in the technical computing service, assisting engineers with their applications and computing infrastructure. A separate computing service provided support for accounts and billing systems. There was a magnificent split – pure animosity – between those two groups.

I was sent on various training courses, mainly about minicomputers. ESB used Data General Eclipses and Digital Equipment VAXes on the engineering side of the company. But its senior management sent out strong signals that the VAX family, which was assembled in Galway, was the right choice for most requirements. We used a VAX 11/750 for power system simulation and operation and, later on, I worked in the Stephens Court office with an 11/780 that ESB bought for design and construction work on the Moneypoint power station.

My earliest encounter with data communications was in or around 1980. We had a 300 baud acoustic coupler, built into a magnificent hardwood box, that was attached to a handset for dialling out through the telephone network. It was only used for proof of concept purposes. We never found a serious application for it. But I remember taking it home, connecting it up and getting it to connect to our systems.

I also recall installing IBM 3274 data controllers to provide remote access to various ESB offices and sites throughout the country.

In the early 1980s there were jobs all over the place for anyone who had computing experience. I felt that I was not gaining a large enough variety of experiences in ESB at that time. So I moved to Cognotec in February 1984.

Cognotec, at that stage of its development, was like a campus company inside the CII. Brian MacCaba ran it. He had originally joined the CII as an economist, but had turned into an evangelist for videotex-based information services. When I joined, Brian was trying to get the treasury departments of the banks to make foreign exchange data available to businesses with videotex terminals.

CII bought a VAX to run the service from its offices in Kildare Street. We obtained modems from Cornel and user terminals from Philips. A company in Belgium supplied the videotex software. Tom Hardiman was the chairman of Cognotec and I recall Dermot Desmond being an early investor in the company. He seemed to spend a lot of time in our office. Cognotec's financial accountant was Bernie Cullinan, who subsequently led Performix Technologies and SteelTrace. I was responsible for recruiting technical people.

I stayed in Cognotec for just over a year. By then the financial data service was up and running and we had paying customers. But we realised that the company would need to develop other services in order to pay its way. I had also become very aware of the limitations of videotex. The terminal screens were only 40 characters wide. People were going to want PCs instead.

By now I had become known as someone who could manage VAX systems. The National Software Centre had bought a large one, so I went to work there as the resource facility manager in March 1985. Very quickly, though, I found myself dragged into research projects. One of these was a network security project in Cost-II-ter – the European programme for co-operation in scientific and technical research.

The National Software Centre had been set up by the IDA. It was led

A Tribute to Jim Smith EI4CP (Silent Key)

by Brian Dugan, who was headhunted from Standard and Poor's in New York. The original concept for the company was that it could raise development standards in the software industry. The centre would get involved in pre-competitive research through European programmes like Esprit and Race, then bring in software companies as contractors. What actually happened was that academics joined the programmes in order to get funding. It soon became obvious to me that the centre was going nowhere. In December 1986 I went back to ESB and worked in their IT department and in their telecommunications function for the next few years.

I had, however, been impressed by the Cost-II-ter projects. One of these introduced 'the CIA trio' – the core concept that information security must safeguard against breaches of confidentiality, breaches of integrity and breaches of availability. None of the National Software Centre's clients had ever told us that they were concerned about these issues. A few years later, though, a group of Irish chief executives began to discuss the potential vulnerabilities in computer networks. The systems in their companies had moved away from batch processing and into online transactions. The CEOs had noticed that sensitive data was passing through their networks.

Apart from the two big banks,

Jim Smith in 1989. Photograph by Frank Fennell Photography on behalf of ESB

however, no organisations in Ireland had set up an information security function. In August 1989 ESB advertised internally for a computer security manager. The new role was deliberately kept separate from the computer department – bridging the divisions between its IBM and Digital Equipment systems and the rival technical and commercial services. Six or seven people applied for the job. I was appointed in November 1989. I was still just 31 years old.

Throughout the early 1990s my responsibility was to create an embryonic cyber security function for ESB. At that time people were more aware of internal threats, such as the alteration of files, than of the risks from external sources. ESB was, however, an early adopter of technologies like firewalls and anti-virus toolkits.

While I was in the National Software Centre I had seen the EuroKom service and what Simon Kenyon was doing with the UUCP gateway for Unix users. I also knew Mike Nowlan and Cormac Callanan through DECUS. Not long after I was appointed, I took out a subscription to the online service they provided to the Irish Unix Users Group. I could use it for e-mail and to access Usenet groups that discussed security. When Mike and Cormac started IEunet I became an early customer of its internet service.

Because there was no way to access IEunet through the ESB computer networks, I got a phone line to my desk and connected through a dial-up modem. I was also able to dial in from home. It was not long before I started helping other people in ESB to do the same thing, mainly so that they could access technical news groups. All of the demand was bottom-up. Using the internet was a personal thing. Individual tech heads knew about it and wanted to get into the new technology. It would be many years before internet usage and infrastructure became a specific budget item and thus came to the attention of senior management.

We had internal e-mail in ESB through the Digital All-in-1 office information system. But anyone who wanted external mail in the early 1990s had to ask for approval from the IT Security function and their Head of Department. We did not get too many people looking for it initially. The company did not allow everyone to have access until some time in the mid-1990s. I remember making sure that we reserved the esb.ie and esbi.ie domain names, but I was not involved in any decisions about developing a web site.

By 1995 internet and web security were live issues. There was a huge emphasis on combating viruses and a lot of talk about encryption. I was dealing with the London-based European Security Forum and with security product vendors like Dr Solomon's and the Peter Norton Computing Group inside Symantec. ESB was also an early adopter of Websense's internet usage monitoring software.

The job description for the information security manager did not change much over the years. I remained in that role until 2011 and I finally left ESB in November 2012. But I have stayed active in amateur radio to this day and also keep a close eye on the cyber security and data privacy world.

We extend our deepest sympathy to his wife Evelyn, daughter Jenni, son Alan, son-in-law Stephen. Daughter-in-Law Anne, father Charles and his wife Elizabeth, brothers Michael and David, grandchildren Ava and Sofia, sisters-in-law, brother-in-law, nieces, nephews, aunts, extended family, neighbours and his many friends.

Farewell old friend and may you rest in peace.

Ar dheis Dé go raibh a h-anam

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My name is Adam Sweeney, and in 2026 I plan to be the youngest Irish person to summit Mount Everest, the tallest mountain in the world at the age of 22, with the current youngest being 26.

In February of this year I completed my first big mountain - the highest mountain in South America, Aconcagua standing at 6961m in The Andes. With a success rate of only 30% I was delighted to make it to the summit with no problems with fitness, skill, or altitude sickness. As far as I am aware, at 20 years of age, I am the youngest Irish person to summit Aconcagua, but I could be proved wrong with that fact!!

Summitting Aconcagua in the Argentinian Andes, my first 7 summit, has given me the confidence to move on with my dream.

In November 2024 I plan to climb Ama Dablam with an Irish Team in Nepal. At 6,812 meters which is slightly lower than Aconcagua but it is a step up in technicality and a natural training ground for Everest.

In May 2025, I'll be going to Alaska to tackle Denali, the highest mountain in North America. The approach to Denali is a challenge in itself, where I will have to haul my expedition gear on a sled to Base Camp, taking 3-4 days. The summit attempt itself will take 21 days, with time taken acclimatising to the mountain altitude, before an assault to the top which stands at 6190m. This is a fully self-sufficient trip and a great mental test before Everest.

With your support, we can create human history and be the youngest Irish person ever to summit Everest, the worlds highest mountain.

Thank you ,
Adam Sweeney

You can help by clicking on the link below or by copy and pasting the link into your browser and donating to my Go Fund Me page

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DAW Electronics

My business is a comprehensive repair facility now based for the last 6 years in South Wales. I have a country wide client base and special thanks to all my customers so far for that. In the last 6 years I have repaired and serviced somewhere in the region of 2000 radios varying from military Clansman to some of the lates Amateur radio and CB equipment. As a time served engineer for the last 40 years, I have a good knowledge base from VLF to microwave equipment solid state and valved. To new and old clients, I would like to thank you for your support and trust in my service.

Email: dave.g4tiw@hotmail.co.uk
Mobile: 0044 7785294926
(Monday to Friday Business Hours: 9 - 6pm)

Summits on the Air is an amateur radio awards scheme. To participate in this scheme you do not become a "member", there are no dues to be paid or membership cards to be issued. You can join in straight away! Just go to SOTAwatch to see what is happening right now in SOTA. To post to SOTA facilities you will need to register an account and then you will be able to add alerts and spots on SOTAwatch (which will likely help a lot, if you plan to activate) and upload your chases or activations to the SOTA database. There is no charge for registering. The SOTA Reflector uses a separate user account system; so to join in with discussions there simply click on the "Sign Up" button. We recommend that you save a copy of your passwords in a safe place - every week we have to help people who have forgotten their passwords!

You can then Chase or Activate when you feel like it - SOTA is global, activations can take place throughout the 24 hours of the day. Once you transfer your log to the database there is a permanent record and you can check your entries against those of the stations that you contacted, and keep track of your progress towards awards. Later you might wish to purchase awards, trophies or goods from our on-line shop. These purchases and the occasional donation are the means of financing the SOTA facilities.

More information:

https://www.irts.ie/dnloads/sota.pdf

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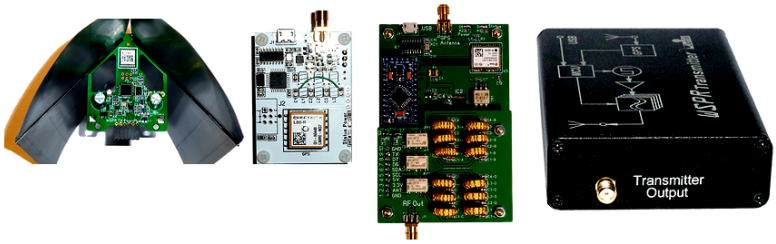

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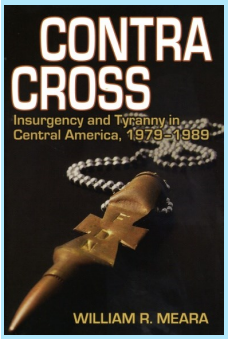
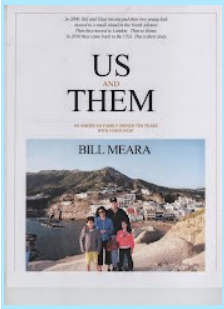


A journey through the Central American wars of the 1980s as seen through the eyes of a young American officer who worked on both sides of insurgency in the region: In El Salvador Bill Meara supported efforts to defeat insurgents; with Nicaraguans he worked to keep an insurgency alive. One of very few Americans to see both sides up close, he takes readers into his world as an advisor struggling with cultural differences and human rights violations while trying to stay alive in murderous El Salvador. We join him on dangerous helicopter rides into contra base camps on the Honduran-Nicaraguan border and into a U.S. Embassy under attack. From Special Forces school at Ft. Bragg to Joan Baez's back-stage party in Managua to a contra POW camp deep in the jungle, we get a taste of Meara's world up close.



What happens if you take an American family and send them to Europe for ten years? In the summer of 2000, Bill and Elisa Meara, accompanied by 2 year-old Billy and 4 month-old Maria, left their home in the suburbs of Washington, D.C. and moved to the Azores. There they experienced the highs and lows of diplomatic life on a small distant island. After three years in the Azores, they spent four years London and three years in Rome. Overseas they lived in two houses and two apartments, went to five schools, used four different health care systems, experienced one earthquake, 9-11, the terrorist attack on London, tea with the Queen, the election of Barack Obama… and all the ordinary things that families go through. They lived mostly with the locals, learned Portuguese, Italian, and a bit of Cockney, and made many friends (foreign friends!) They returned to the United States in 2010 with a changed view of the world. This is their story

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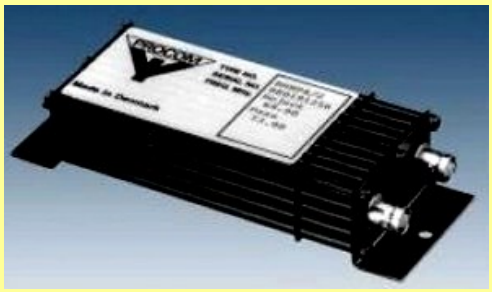

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