The North Kent Radio Society
G4CW · G8TNK

http://www.nkrs.org.uk/

Issue 209

NKRS Newsletter

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Our next meeting will be at :
The Hurst Community Centre, Room 3, Hurst Place, Bexley, Kent, DA5 3LH

Date	Event
07 February 2023	Natter Night
21 February 2023	Scanners by Ian G7PHD
07 March 2023	Natter Night
21 March 2023	Steve on Climbing the clock tower
04 April 2023	Natter Night
18 April 2023	Open Discussion
02 May 2023	Natter Night
16 May 2023	Anne on Neurology
06 June 2023	Natter Night
20 June 2023	Video night
04 July 2023	Natter Night
18 July 2023	Andy on meteorology
01 August 2023	Natter Night
15 August 2023	Bring a thing night
19 August 2023 **	Lighthouse weekend Not a normal club night

Please note that Meetings are open to all, not just members of the NKRS. Visitors are always welcome.

Club Net

The club net takes place every Tuesday on non club nights at8.30pm , call on 145.5 and then we move to a convenient clear channel.

Please feel free to join us join us.

Thanks to Tony Fishpool for his contribution to this newsletter see pages 6 to 8

The last meeting - Steve on WSPR with the Raspberry Pi

Steve Osborn G8JZT gave us an excellent talk on using the raspberry pi with the excellent Joe Turner K1JT software.

WSPR (pronounced "whisper") stands for Weak Signal Propagation Reporter. The protocol designed, and a program written initially, by Joe Taylor, K1JT (a Nobel Physics prize winner). The software code is now open source and is developed by a small team.

The WSPR software implements a protocol designed for investigating possible propagation paths with low-power transmissions.

Transmissions carry a station's call sign, Maidenhead grid locator, and transmitter power in dBm. It is possible to decode signals with S/N as low as -28 dB in a 2500 Hz bandwidth.

If you have internet access when running the software you can automatically upload reception reports to a central database called WSPRnet, which includes a mapping facility.

The impressive part is because the signals have a very narrow bandwidth, it is possible to decode them when human ears can't detect the signal is even there.

As can happen with practical demonstrations things do not always go to plan but Stephen gave us a very interesting talk and an evening well worth turning out into the cold for.

Previous articles in the NKRS Newsletter

Newsletter 95 30th April 2016
Page 4 and 5 Dave Collings on Data Modes

Newsletter 180 27 July 2020
Pages 7 to 10 Homebrew WSPR beacon by Tony Fishpool G4WIF

South Essex Amateur Radio Society

36th Canvey Radio and Electronics Rally
Sunday 5th February 2023.

Doors open at 10.00am at
Cornelius Vermuyden School, Dinant Avenue, Canvey Island, Essex SS8 9QS

PLEASE NOTE : CASH ONLY ON THE DOOR

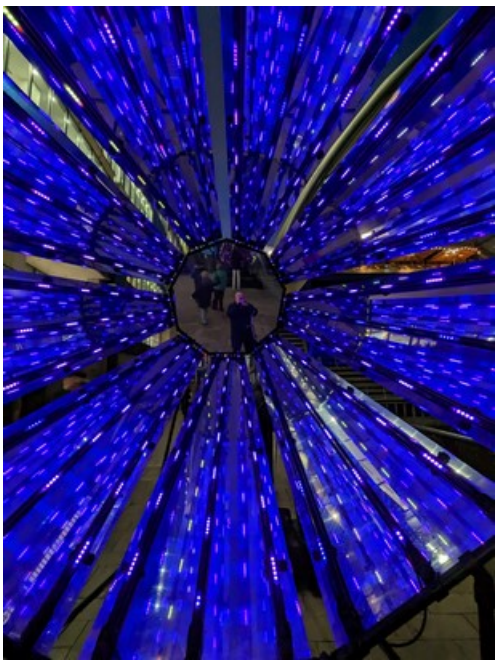
Winter Lights at Canary Wharf

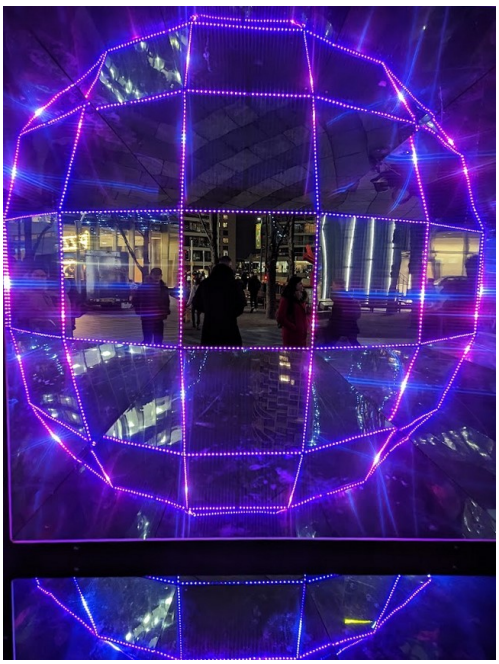
This is a free event at the now even easier to get to (thanks to the Elizabeth line) Canary Wharf.

I usually advertise this event in advance to give readers the opportunity to visit this impressive display of lights but I only heard about it after the last newsletter and by the time you read this it will be over. I am not sure that anybody who reads this ever has ever been there so I don't feel too bad about that.

I went along on a cold night with my wife and a friend. Although the event was for a shorter period than usual it was an excellent display.

Continued page 4.





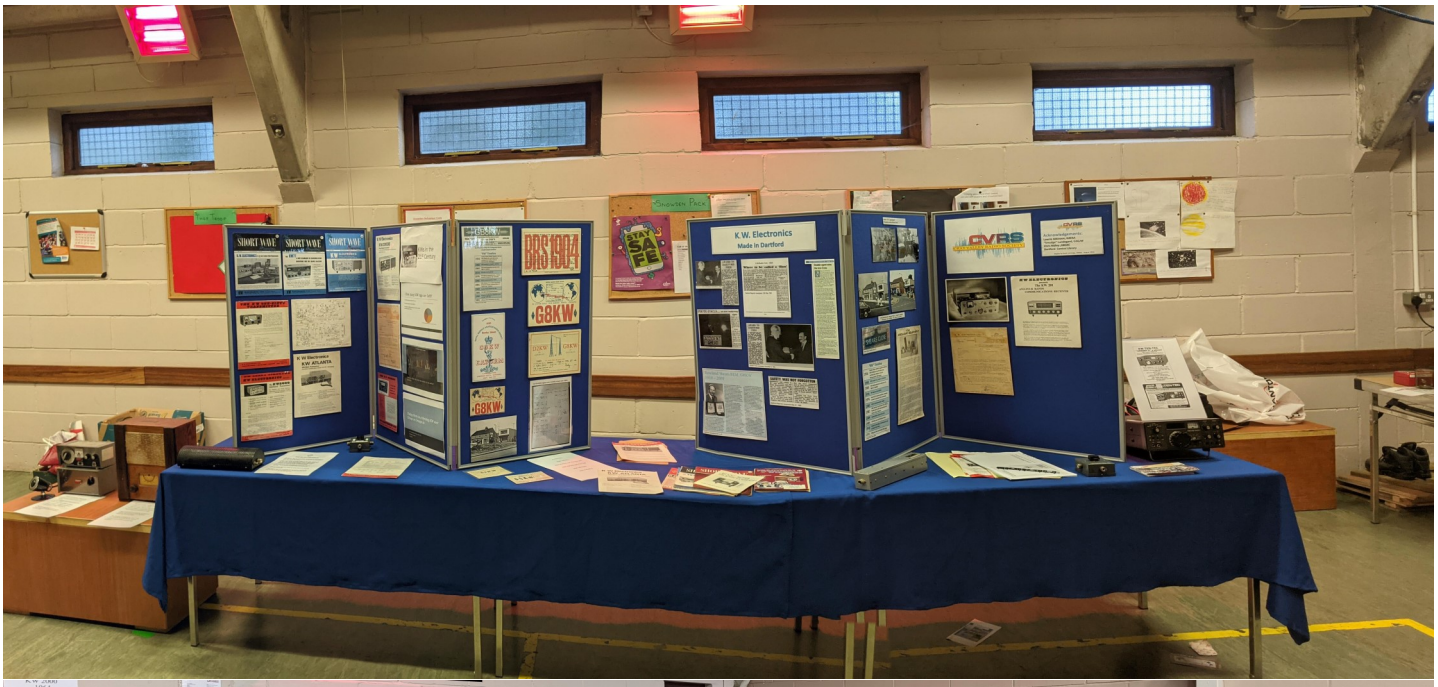



KW Weekend

From Wikipedia

> **K.W. Electronics** was a British manufacturer of amateur radio equipment founded in the mid 1950s by the late Rowley Shears G8KW. It was based in Dartford, Kent, and manufactured a wide range of high frequency band receivers, transmitters and accessory equipment. The company was taken over by DECCA and subsequently ceased production during the 1970s.

KW Weekend 2023. Every year the Cray Valley Club run the GB8KW special event station.
This year it was held on 7th and 8th of January 2023 at the Cray Valley Club Shack. This annual event marks the anniversary of the founding of KW Electronics in the mid 1950s that was located nearby in Dartford until the mid 70's.



Facing the camera in the photograph on the right is Steve G3ZPS.

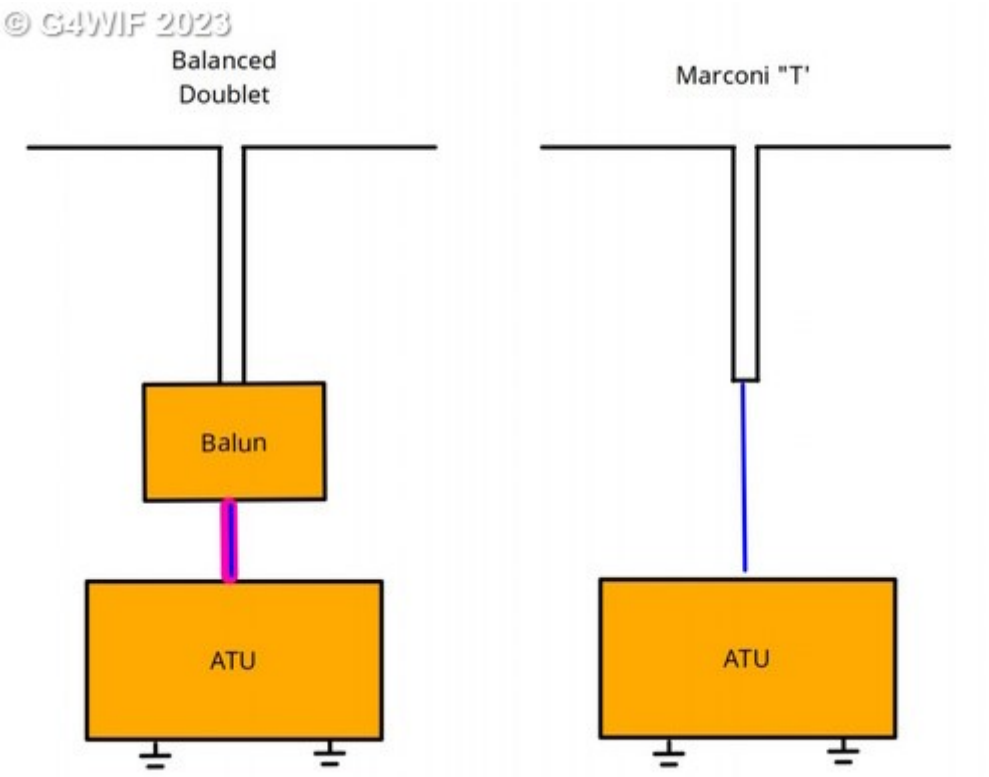
For more information on KW equipment and history visit his excellent web site.

G3ZPS web pages

Remote Aerial Switching Unit – Tony G4WIF

The inverted V doublet described in a previous article [1] has performed very well - except on Top Band and really, it isn't long enough for the band as it stands. So it was time to try the solution employed by Ian G3ROO with a similar aerial which was to short the feeder and load against ground. This is known as a Marconi "T". This solution [2] was published in September 2002 Radcom. [The G3ROO multiband Multimode Antenna]

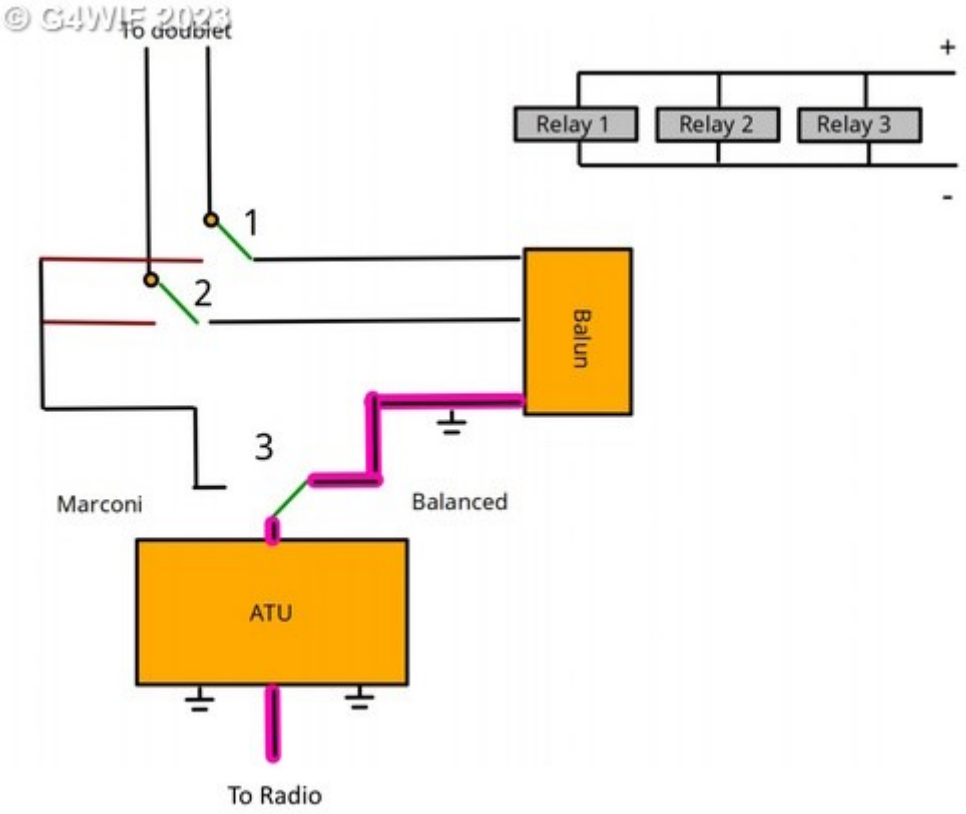
Here are the two scenarios.



So clearly, some remote switching is desirable and that involves relays which I failed to find at rallies in a suitable form. Then Ian G3ROO discovered automotive relays. These are the kind that you have in your cars and there seems to be very few varieties. All those I found were identical in ratings and pin outs. Which was great and you could go for the best price. They all had one single changeover contact rated at 30-40 amps. I think I paid around £12 for 5 relays.

Here is an example:

This then was how I wired them:



The Construction.

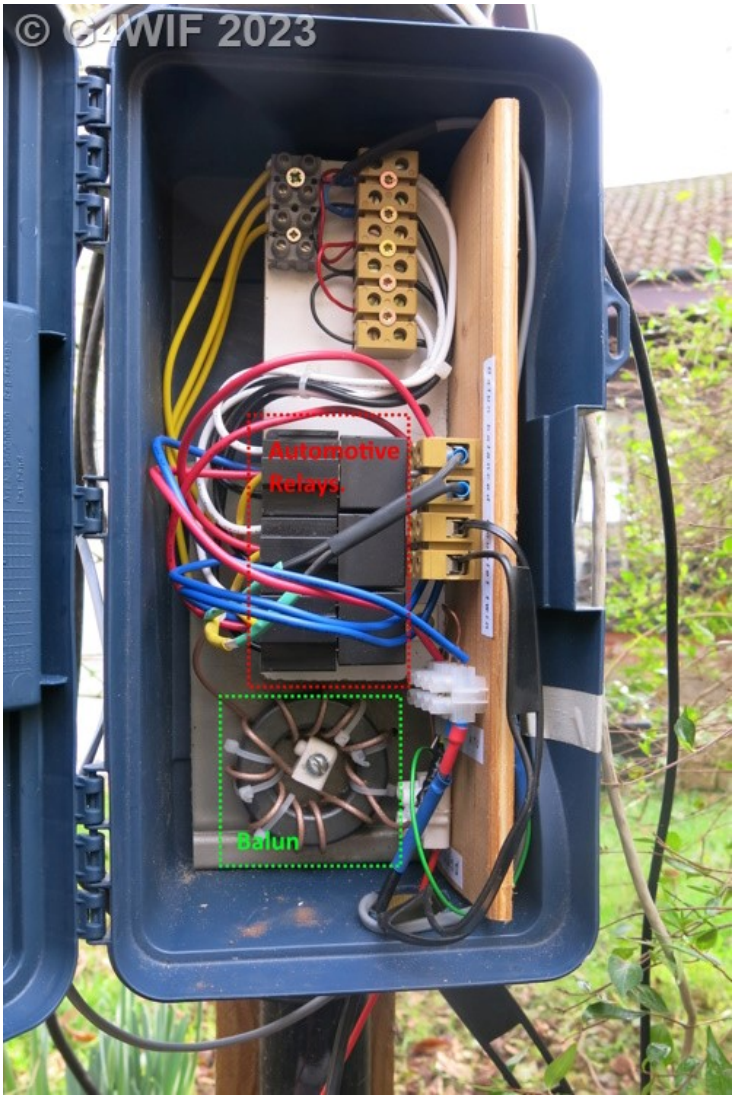
Fortunately, the local Sunday boot fair provided a toolbox for 50p that was the perfect container which was screwed to the post supporting the Spiderbeam pole.

The Remote ATU is housed temporarily in a food container box above the switch box. Next summer I will be looking for another toolbox!

Both boxes have proven up to the job of keeping the rain out.

Inside the toolbox are the relays, the various connection points and the 1:1 balun for use with the doublet.

The CAT 5 cable from the shack goes first to the box containing the remote ATU supplying power. Then a separate screened twin cable goes from there to the switching box which controls the relays. There is a ground connection in the toolbox to where the screen is connected.



There is no claiming it is a thing of beauty but it works very well. Back in the shack I have a simple toggle switch that allows me to switch between the configurations and compare signals on the two aerial configurations.

The Results

So far the performance on Top Band is remarkable. For instance, in the afternoon, the OK0EV [3] beacon in Prague is barely readable in the doublet configuration but is a solid signal

in the Marconi "T" mode.
Plus, the Marconi matches easily on Top Band, whereas the Doublet does not.

On other bands there may be occasions where the vertical polarised Marconi provides a better performance than the horizontally polarised doublet. However, there is a noise penalty to be paid with vertical polarisation, even here in the countryside with fewer houses and therefore, fewer noise sources.

Links:

1. www.fishpool.org.uk/doublet.htm
2. https://rsgb.org/main/blog/publications/radcom/2022/08/19/radcom-september-2022-vol-98-no-9/
3. http://www.ok0ev.cz/main_uk1.html

RANG Rides Again

The **R**oyal **A**rsenal **N**arrow **G**auge **R**ailway

The volunteers have completed work on the locomotive Bazaljett and the track so on 31st January they will be filling the train with volunteers to perform a load test.

They anticipate having the railway running for the first Open Day of 2023 on Sunday, 12th March.

Extensive work has been carried out on the locomotive costing around £10,000.

Device transmits radio waves with almost no power

Without violating the laws of physics

There are a couple of articles here on this subject that you might find interesting and you could experiment with if you have spare time. (what's spare time ?)

https://theconversation.com/device-transmits-radio-waves-with-almost-no-power-without-violating-the-laws-of-physics-196271

https://hackaday.com/2023/01/27/a-single-resistor-radio-transmitter-thanks-to-the-power-of-noise/

The coming to the end of an era

Some say it was the original fast food, pie and mash was a traditional working-class food, originating in the Docks of London. It typically consists of a minced beef pie, mashed potato and a parsley sauce known as liquor.

Although pie, mash and eel shops have been in London since the 19th century sadly they are dying out. Cooks in Broadway Market (shown in the photograph left) opened in 1862 but has now sadly closed its doors for the last time.

Owner 71-year-old Bob Cooke, who has been preparing pies at the shop since he was five, said the closure “was one of those things,” pointing to new fast-casual restaurants on Broadway Market as contributing to slowing sales. “In the past there were no fast casual restaurants and you never heard of a pizza...Now you go in every pub and there’s food.”

There are still some East End pie shops open but they are getting fewer by the year as people would rather pay £10 for an avocado and brie sandwich than £5 for pie and mash.

Anyone want to buy a Red Arrow ? You don’t have long to make a bid

https://agility.gpsv.co.uk/auctions/#/auctions/7fde9d92-5e24-4a98-83a3-56424342eeb6

That’s all for this issue Dave G4YIB 29.1.2023

> “So we shall let the reader answer this question for himself: who is the happier man, he who has braved the storm of life and lived or he who has stayed securely on shore and merely existed?”
> — **Hunter S. Thompson**