



NKRS Newsletter

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Our next meeting will be whenever the world is declared safe but when it happens it will be at
The Hurst Community Centre, Room 15, Hurst Place, Bexley, Kent, DA5 3LH
Doors open at 8PM

Hopefully there will come a day when the Government and the members considerate it is safe to resume meetings.

I am not too convinced that those dates will coincide as the government's decisions are finance based where our decisions will be safety based but hopefully the day will come when we can resume meetings and be assured we will inform you when that time comes.

Club Net

The club net is now taking place every Tuesday 8.30pm , call on 145.5 and then we move to a convenient clear channel. Please join us.

PLEASE NOTE UNTIL MEETINGS RESUME I WILL ONLY PRODUCE THE NEWSLETTER MONTHLY



Coffins awaiting re-burial in the USA



**Bryan Carling
1950 - 2020**

This is a personal tribute to Bryan and as I understand it there are a number of other testimonials to him on the internet.



Bryan (left) and his brother (right) playing at the Haymaker in Cambridge.

Bryan was born in the UK and initially became a short wave listener until he received his licence G3XLQ in 1968. He moved permanently to the USA in 1972 although he had spent some time living there previously. He initially operated as WB4FPH, and later in 1978, he obtained his Amateur Extra callsign AF4K.

In the early days of the internet his was the first web site (Bry's Ham Pages) to show a listing for my company Quartslab Marketing Ltd. His site catalogued crystal manufacturers around the world. Its hard to imagine there was only one link to Quartslab, now there are too many to count.

Bryan contacted me in April 2001 suggesting I might like to use the bulletin board part of his site. I found he had worked for Cathodeon in the UK and was living in Florida where I was a frequent visitor so I arranged to meet him in the August of that year.

He lived in Lake Mary Sanford which was about 45 minutes from me so I drove up to see him with Phil G4EGU. Shortly after that Hilary, Tirza and myself met up with his family for a meal and the friendship started from there. Tirza got on well with his son and he took her out with his friends and all was good.



Bryan and I by lake Toho in downtown Kissimmee . Photo by M3YIB



One of the groups Bryan played with after a breast cancer benefit concert in the Lexus dealership Orlando. (Although I was in the photograph my contribution was to help clear up afterwards.)



Bryan AF4K with Tirza M3YIB in the Bahama Breeze restaurant in Kissimmee

From then on whenever we were in Florida either together or as individuals we would get together. He was mainly working on medical electronic equipment until he retired and was often around.

We visited radio rallies together where he would purchase old, often incomplete radios which he would strip and sell for spares alongside his crystal selling business.

A major highlight of one of our visits, was when we were in Florida for Christmas. Bryan and his wife organised a Boxing Day Party where he turned his living room into something like a recording studio and we had a great night with all his musician friends.

Sadly, shortly after we went into lock down in the UK, on April 4, Brian was taken to the emergency room because it was thought he may have had a minor stroke. By 7am the next morning, he had undergone brain surgery with a very grim prognosis of a non operative stage 4 tumour.

Bryan and I had many good times together but one of the things he will always be remembered for by us is his knowledge of excellent out of the way restaurants.

He loved life, music and excellent food.

RIP Bryan.



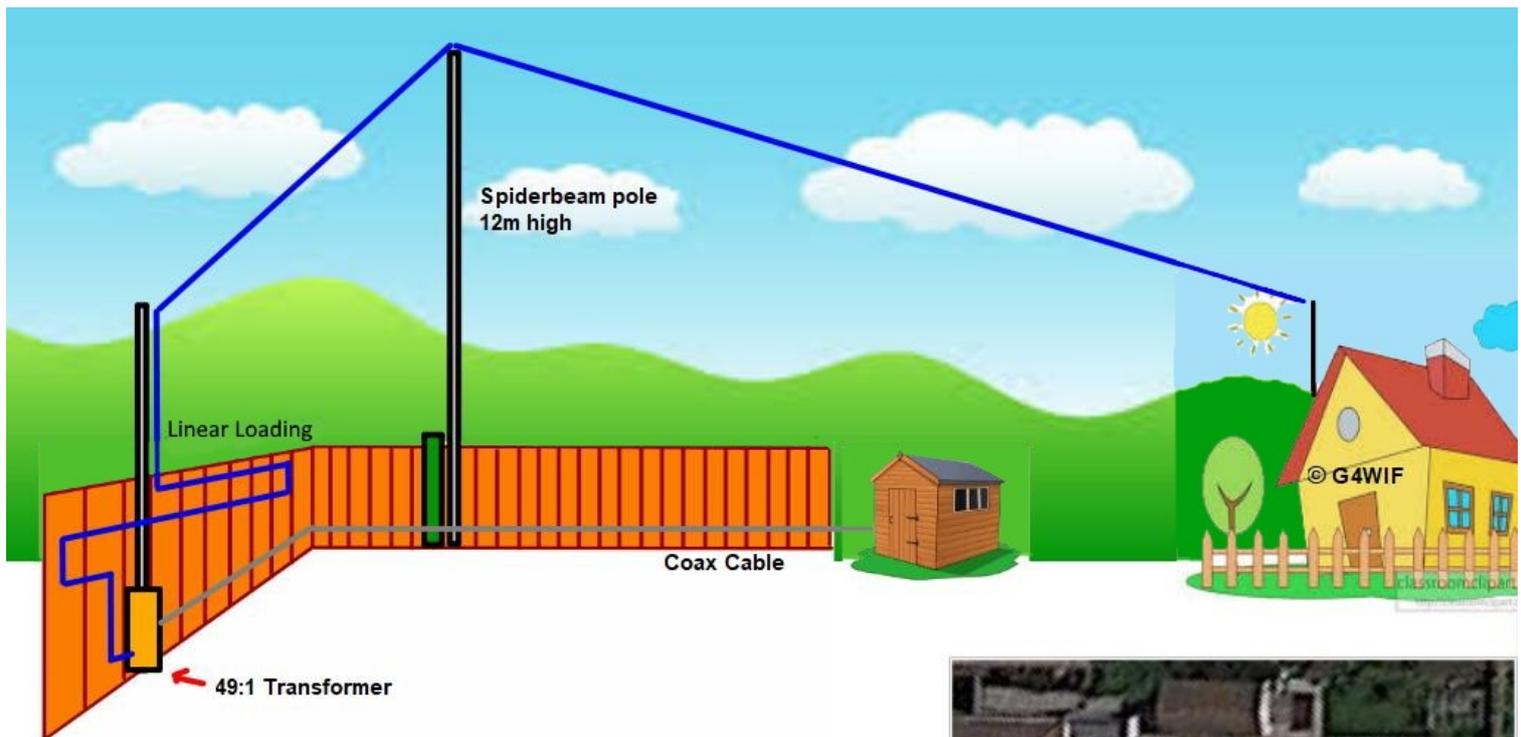
Bryan (left) with his very close friend Dave Hillebrandt, W4CI (right) Not sure who is in the middle.

Two lockdown projects – Tony G4WIF

Keeping your mind busy seems to me to be the best way to get through this pandemic. I've had two projects on the go lately that have achieved that.

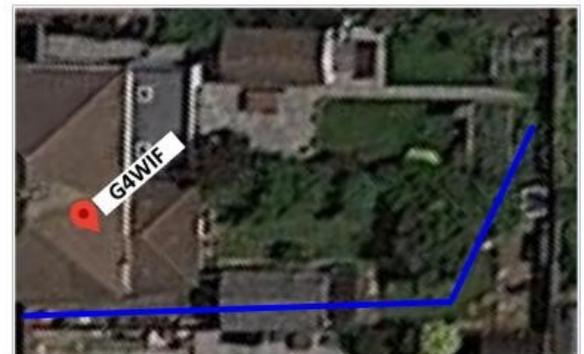
In a previous newsletter I wrote about the 40m end fed half wave antenna that had surprised me by the great multiband performance. The addition of an inductor and a small extra length of wire allowed operation on 80m over a very small segment with acceptable SWR. The 40kHz around the QRP CW frequency worked very well - but the ATU had a hard task when trying to QSY to the SSB end of the band.

I blame Steve G3ZPS in a way - because he hosted a daily 80m "KW net" and I discovered that 80m in the morning can be a lively and very friendly place. Suddenly I wanted good performance over the entire 80m band. The length of a half wave on 80m is of course 40 metres. Could I fit such a thing in my garden? The answer was no – and then yes, by cheating.



How to fit a full size 80m End Fed into a garden not quite big enough.

Satellite View



For my birthday I treated myself to a very rugged 12 metre high Spiderbeam pole. It is rather an awesome thing - and I'm sure that my neighbours were impressed. That height won me a little extra radiator length. Then I "dog-legged" across the garden and lost a little more length by linear loading against the back fence.

Once the length has been twiddled and adjusted using the NanoVNA I had a single antenna that covered 80m and all the harmonically related bands (which is quite a lot). No traps either.

I was able to put a five watt CW signal out on 40m every morning and reliably hit the reverse beacon network with good results from the east coast of the USA.

The other project to fill time these past few months has been vegetable gardening on a scale I had never managed before. When you've got the time and the bit between your teeth then it is amazing what you can do.

I had fired off orders to several suppliers of seeds in the hope that some would get through in time. Amazingly, they all arrived - and so I planted them!

I have over 50 tomato plants currently growing and in five varieties. Runner beans, courgettes, potatoes, lettuce - and broad beans (that we are currently harvesting). The strawberries have appeared and will be ripening soon.

What this taught me is that watering is a time consuming nuisance. Tomatoes get a blight when watered inconsistently and next year I vowed to try an irrigation method where you sit the planter pots on a valve controlled water channel. Then they wick up as much as they need. Easy peasy!

While out walking one day I spotted a neighbour had a skip full of decking offcuts. I knocked and he said I could take them. So I built a couple of units to try this year.



The secret (if there is one) is the slotted black hydroponic "baskets" fitted to a hole drilled in the buckets (97p from B&Q). You lay thin cloth in the bottom covering the hole and poke the cloth and compost in. Then that allows water to wick up while also stopping soil dropping into the water channel (which is simple plastic guttering). Very cheap too. Just over eight quid for four metres.

The water supply is taken from a nearby water butt - filled from the rain falling on my arbour roof.



The second unit is in the greenhouse where I'm trying to bring two tomato plants on early. The whole gardening enterprise and the new 80m halfwave antenna are further documented on my blog. www.fishpool.org.uk There also you can see how I put small "electric fences" around all my planters to discourage snails and slugs.

Thanks to Tony G4WIF for this, some more from him on the next page.



Views from some recent walks

- Left Taken from near Darwin's house at Down is the West Kent golf course. Just the other side of the trees on the horizon is the Biggin Hill runway.
- Right Emmetts garden near Goathurst Common. Closed at the moment but there is a public footpath through the middle.

The 40:1 transformer for a half wave end fed antenna

by Peter Rawlinson M0PBR

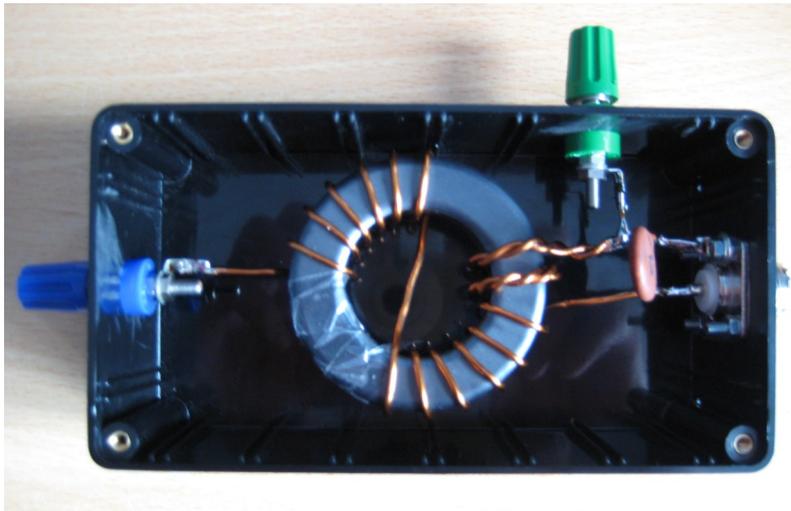
After comments on the NKRS net, I have this morning completed my take on the 40:1 transformer for a half wave end fed antenna which Tony Fishpool G4WIF described in NKRS newsletter 174 back in Feb 2020.

Also on Tony's web page <http://www.fishpool.org.uk/efhw.htm> where more information and links can be found.

I have still to do tests but not sure when these will be done as XYL at home at present. Below are JPEG's of my unit.

I will also copy in Tony Fishpool on this email. *(Tony's comments are below)*

Peter M0PBR



Tony G4WIF's first comment

Hi Pete,

It is a 49:1 transformer. Well it is supposed to be - but I'm wondering if yours is.

The way that you traditionally count turns is to count every time that you pass through the core. From your photo I think I'm counting 13 and it should be 14. Can you check that please?

If it is then you have a lower impedance ratio (slightly).

14 turns, with two as a primary would give you a 7:1 turns ratio and impedance ratio is the square of that.

This is a very low impact aerial visually so should win more spousal approval than the usual dipole with the cable hanging down in the middle.

Kind regards

Tony

Tony's following comment is on Page 8

Tonys second comment

Pete counted the turns and says there are 14 so there's no problem except that it isn't a 40:1 auto transformer. It is definitely 49:1.

14 secondary and 2 turns primary.

That's a 7:1 turns ratio. Square it and you get the impedance ratio.

What it definitely is not is an "unun" which is used with random length end feds (not resonant lengths) and they are 9:1 anyway.

Pete didn't say which length half wave he was using. Obviously a very long one like my present arrangement is good for all the bands from 80 – 10 including two of the WARC bands (but not 30m). The smaller version that I had before was a 40m half wave with extender coil. That gave me a tiny bit of 80m and 40, 20, 15 and 10. [which is not to be sneezed at]

If you want some extra material, recently I have been using the TS2000 for WSPR tests (attached).

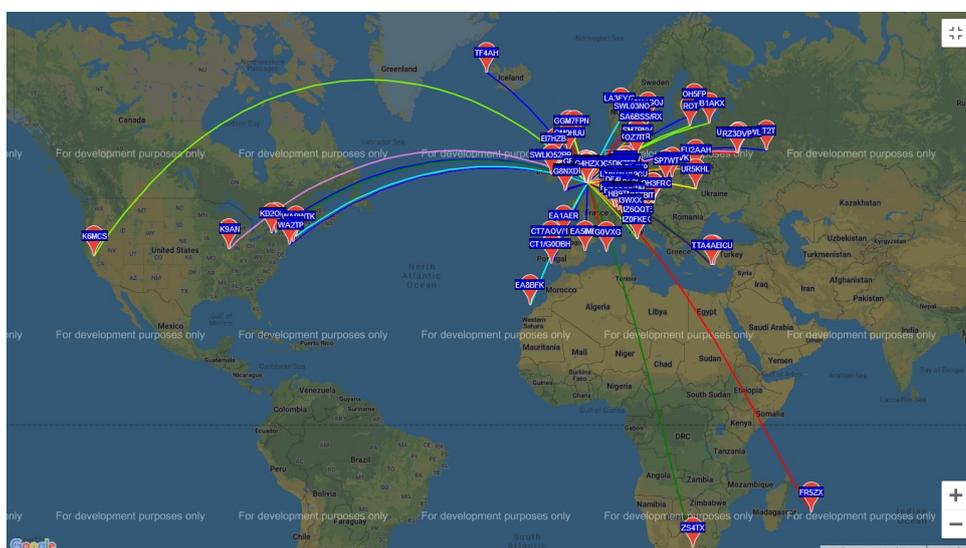
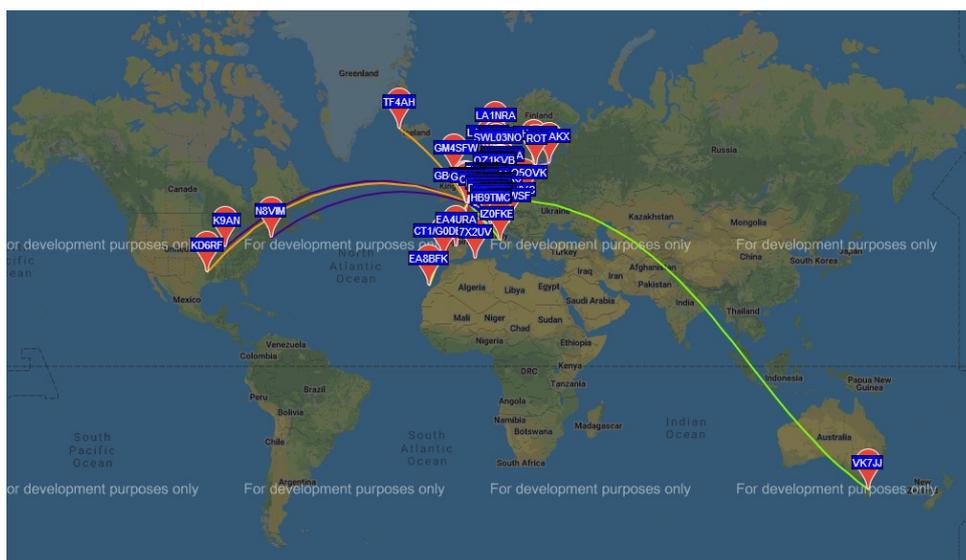
At around 6am a few days ago I managed VK7JJ on 40m. The first time ever I've managed to get a report from Australia. I got my second ever \hat{A} 20m report from a South Africa station ZS4TX.

I'm now building the WSPR beacon that was in Radcom a few issues ago by F4GOH

<https://github.com/f4goh/WSPR>

There is a signal that I can decode on the TS2000 coming out of the DDS. SO now I need to get the 100mW PA working.

Tony G4WIF



John G8DOG said that he just thought that whilst times are quiet, it may be a good time for home brewers to knock up a new radio. They may find the device shown below useful...



606
PHANTASATRON

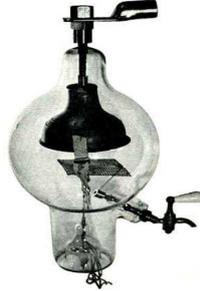
TECHNICAL DATA

DESCRIPTION

The Umac 606 is an infernal anode, helical beamed phantasatron having a dissipation rating. The unique vacuum in the phantasatron is of the double-pumped type, permitting a clear view of the non-emitting triple-processed plunger-type plate. Because of its unique self-flushing construction, this tube will remain usable throughout its useful life.

The grid is constructed of a rare metal selenium chosen for its total lack of emission.¹ Primary, secondary, and tertiary electrons are fully suppressed by a left-hand inclination toward the ecliptic extending from the nadir to the zenith. This also compensates for aberrations in azimuthal displacements common in tubes of previous design, wherein the focal point was improperly focused due to chromatic sphericalism.

The urinated tungsten filament is unique. This process is secret.² The uranium used for the urination is of the triple distilled, single isotope variety with all neutrons removed. This material is obtained direct from the AEC - Los Alamos.



GENERAL CHARACTERISTICS

ELECTRICAL		MECHANICAL	
Filament	Urinated Tungsten	Maximum Overall Dimensions	
Voltage	{ Adjust until half as	Length	1.076 cubits
Current	{ bright as flashlight	Diameter	0.643 cubit
Direct Interelectrode Capacity ...	8.874 gallons	Net Weight	0.069 stone
		Shipping Weight	Not shippable

APPLICATION NOTES

COOLING -- In operation, the 606 requires a minimum air flow of 5000 cubic feet per second through, around, and above the base. This air flow must be passed through the base in both directions in such a manner that none of the seals can exceed a temperature of -20° Kelvin. The pressure drop measured at the hole is equal to three fingers of Old Crow. Forced air cooling of the blank is recommended at all frequencies above 60 cycles. Ordinarily a fan

NOTES:

1. Refer to page 42, paragraph 6, "Notes from the 12U Conference" translated from Russian by A. Popoff.
2. See LS/MFT report, "Secret Process -- Ono Shovel Full to One Shovel Full".

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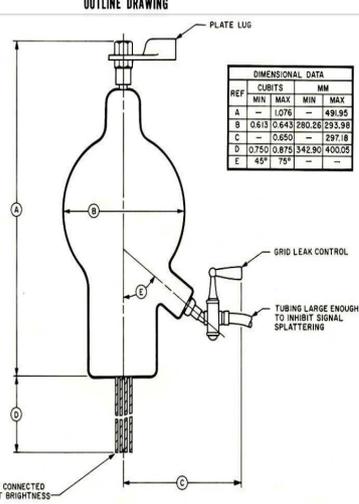
APPLICATION NOTES

able however, as soon as our competitors issue their catalogue. Exhaustive tests in our advertising department have shown that the 606 will give 50 per cent more output than you will obtain. In case of tube failure, our tests show that you have exceeded the safe limit, regardless of output. In such cases, more air is recommended.

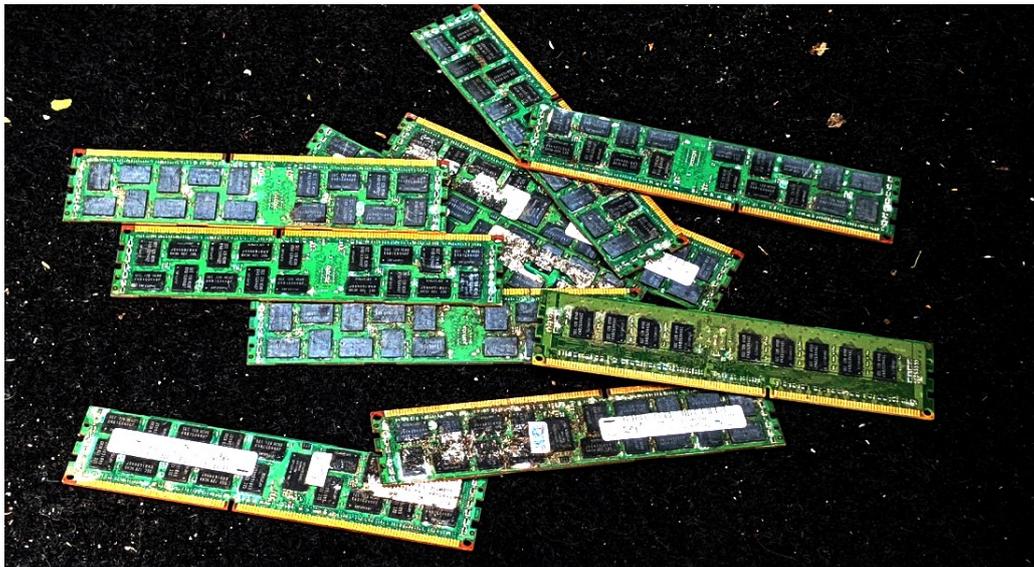
OPERATION -- Because of its unique construction, the 606 can serve as an oscillator, modulator, or amplifier. It usually serves as all three simultaneously. No specific operating conditions are available. Ratings will be available

BIAS VOLTAGE -- To prevent splattery signals, a large leak is recommended.

OUTLINE DRAWING



REF.	CUBITS		MM	
	MIN	MAX	MIN	MAX
A	—	1276	—	49.95
B	0.613	0.643	260.50	253.50
C	—	0.650	—	257.18
D	0.750	0.876	342.90	400.05
E	45°	75°	—	—



What grows in your garden

I am a reluctant gardener but recently circumstances have meant that I have been doing some.

Poking around in an obscure part of my garden where I rarely venture I found a bag of computer memory modules.

They were never mine so it is a puzzle how they got there unless the foxes brought them round as a present but forgot to leave them anywhere they would be found.

Will they grow if I plant them ?

That's all for this issue, stay safe and healthy and remember because "someone" says it safe, it ain't necessarily so.

Dave G4YIB