

DORSET AMATEUR RADIO SOCIAL NETWORK

Technical Supplement

February 2026

www.darsn.co.uk

Welcome to the February edition of the Technical supplement Newsletter.

In this issue we continue with KICAD and continue with the Audio Amplifier project and take a look at higher current power supplies. We will also run some DARSN projects that might just help in the future!

Also keep an eye out for a GPS portable receiver project – Coming Soon!

On with the show!



Lindsay - 2E0VDD
Secretary / Treasurer



Bill - 2E0WEG
Chairman



Tim – 2E0TPH
Editor

Events in February

145Alive
7th February
12:00 until 15:00

21st February
Tank Museum
Bovington

See page 5 for more.

Nets

Mondays	No Darsn Net
Tuesdays	145.400 FM
Wednesdays	70.375 FM
Thursdays	Zoom Chat
Fridays	No Net
Saturdays	28.375 USB
Sundays	144.375 USB

All details can be found on our Facebook page



Contact Us:

Lindsay
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www.darsn.co.uk

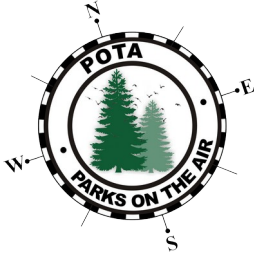
Bill
(Via Lindsay)

Tim
admin@wavewizards.org
www.wavewizards.org

POTA Weekend

Don't forget that the First POTA – Support your Parks Weekend has now been and gone.

[Check my Stats](#)



Your Projects Wanted !

Have you got a project that you would like to share with us?

You can submit articles / projects for inclusion here by sending them to the Editor.

Submissions should be tested and be of your own work. We cannot and will not publish anything we feel is Copyrighted material.

Anything is considered.

Changes to DARSN NETS!

Mondays	No Darsn Net
Tuesdays	145.400 FM
Wednesdays	70.375 FM
Thursdays	Zoom Chat
Fridays	No Net
Saturdays	28.375 USB
Sundays	144.375 USB

No DARSN Net on a Monday BUT, you are all welcome to Join in the Monday Evening Net on 145.375MHz (FM) hosted by [Poole Radio Society](#). Check out the [NETS](#) Page for more details on Nets in the area.

New DARSN Shop.

We are pleased to announce our new [Shop](#) which can be found at <https://www.wavewizards.org/shop> We offer free local pickup for DT3 DT4 and DT5 postcodes. All other postcodes can obtain flat rate postage and this is subject to change as we get better deals on postage sorted out. Most payment methods are accepted (See Last Page) Not only will you find DARSN related products but you will find other items like Electronic Kits (Coming Soon) and Parts and 3D Printed Goodies [Thanks to Reece M7DVX] Take a look and see what is available!



Vintage style Plain Base Ball Cap

£9.99 **£7.99**

Select options



Ham Radio Hoody (Blue)

£25.00 **£18.00**

Add to basket



Darsn Branded Mug

£6.50

Add to basket



Baseball Cap (Printed Logo)

£9.99

Select options



Baseball Cap (Stitched Logo)

£9.99



Slate Coaster

£3.00



Key Ring (Enclosed)

£1.50



Key Ring (Faux Leather)

£1.50

Other Website News

You will notice that the right side column of the website now shows Shop Items.

RSGB and ICOM news is displayed at the very bottom

There will be various changes as time goes by to offer a more inclusive browsing experience. I am also working on a Buy and Sale section where you can search for items across various sites. This is not going to be complete for a while but I am busy working on it.

As always, you can always download the Newsletter from: [Wavewizards](#), [DARSN](#) or [Facebook](#)

Bio of the Month – Lindsay 2EOVDD

Hi All

My Name is Lindsay, known as Lins to my friends, (yes I do have some! Lol) This is my current radio shack in a spare room at the back of the house. I started my interest in radios in the 80's like a lot of others with CB's in our cars and I had one in my flat 3 floors up, on Ashley road in Parkstone with an indoor antenna on a tripod, near the window.

In March of 1998 (I remember it well) I met my best mate Bill who had also had a CB background, we started to get involved in the Bournemouth radio club and we studied and went to meetings, they did practicals in those days, and in 2000 we took our Foundation licence, my call sign was M3VDD. In 2004 we took our intermediate Licence and I managed to get the 2EOVDD call sign on request.

Work then got in the way as it does for a lot of people, 24hr shifts, sleep ins and looking after vulnerable people in the care home took up all my time, the rest of the time I was pretty exhausted and didn't have time for radio.

To cut a long story short, I took early retirement in 2017 and started a gardening business, Bill and I did this for 4 years. In the mean time we were starting to sort out our radios and put some of them back together, however they weren't all working as they had been stored away for so long.

During the dreaded Covid Pandemic, we had lots of time to rebuild our shacks. I particularly like to make contact with special callsigns, and enjoy working the different bands including HF, 2m/70cm, 4m etc... I operate a IC-7300mk2, TS-590SG, TS-870, TS-480 Sat, AT-588, FT-2600M, in the shack & a 2m/4m and CB in my little van. I am still learning as things have changed a lot since 2004, just about got my head round FT8, SDR's and other data & digital modes that I either didn't know about or didn't exist back then. I enjoy going out mobile or portable in the summer months particularly as its difficult for me at my QTH to get out east or north due to some rather large hills and other local interference.

Anyway, I'd better stop waffling now, just to say big thank you to all of you that have helped me out with bits and pieces, and helped to make the Darsn group successful, but with special thanks to Bill who got me into this in the first place and has helped me with my antennas & radios over the last 25 years! Also Mark 2EOVOV and latterly Martin, Tim & Reece - Lindsay 2EOVDD

Would you like to star in our "Bio of the Month"? admin@wavewizards.org



DX News

The following screen capture comes from the Cloudlog server that I host and is open for everyone to use. To get a username and password for Cloudlog simply send me an [Email](#) with your Name, Callsign and Email address. You can also use the [contact](#) form and I will get you an account setup.

Some events run across February AND March hence the two screen captures below.

February 2026

Start Date	End Date	Country	Callsign		Notes
04/02/26	09/03/26	St Kitts & Nevis	V4/KOYA	Not Worked Before	By KOYA as V4/KOYA and W5RCP as V4/W5RCP fm St Kitts; 160-6m; CW SSB FT8 FT4
05/02/26	20/02/26	Sao Tome & Principe	S9BV	Not Worked Before	By S53BV; 60 40 30 15m; CW SSB; holiday style operation
06/02/26	19/02/26	Cape Verde Is	D4VR	Worked Before IOTA AF-005 Needed	By DD0VR; HF; QRP; Feb 6-11 fm Boa Vista I (IOTA AF-005); Feb 11-19 fm Sao Tiago I (IOTA AF-086)
07/02/26	14/02/26	Falkland Is	VP8TDX	Not Worked Before	By NE8Z fm Port Stanley; 40-6m; CW FT8 FT4; windom antenna; QSL via Club Log OQRS
10/02/26	17/02/26	Greenland	FM	Not Worked Before	By OZ7AKT as fm Kangerlussuaq; 160-10m; SSB CW FT8
14/02/26	28/02/26	Falkland Is	B/D	Not Worked Before IOTA SA-002 Needed	By DC8TM fm IOTA SA-002; HF; SSB FT8; QSL via DC8TM (B/d)
15/02/26	14/03/26	Bouvet I	3Y0K	Not Worked Before	By LA7GIA and team; begin and end dates subject to change; see Web for full QSL details
19/02/26	27/02/26	Guyana	B/D	Not Worked Before	By IZ0EGA IZ0EVI IZ0EJ IZ6DSQ; 160-6m; SSB FT8; QSL via IZ0EGA (B/d)
21/02/26	28/02/26	Barbados	8P9XB	Worked Before Confirmed	By VE2XB; 160-6m; holiday style operation
21/02/26	07/03/26	St Kitts & Nevis	V4/WA7RAR	Not Worked Before	By WA7RAR as V4/WA7RAR fm St Kitts; 20-10m; SSB CW; QSL via WA7RAR direct

March 2026

Start Date	End Date	Country	Callsign		Notes
03/03/26	20/03/26	Anguilla	VP2EAD	Not Worked Before IOTA NA-022 Needed	By SQ2RAD as VP2EAD, M0PLX fm IOTA NA-022 (FK88lf); 160-6m; CW SSB FT8
13/03/26	15/03/26	Svalbard	JW8EKA	Not Worked Before	By LA8EKA; @JW5E; 20-10m; SSB RTTY PSK31 FT8
13/03/26	25/03/26	Austral Is	24/7	Not Worked Before	By PGSM PA3EWP DL2AMD PA2KW DK2AMM DL2AWG; 80-10m; CW SSB RTTY FT8; 3 stns, 24/7; QSL manager: DL2AWG (see Web)
16/03/26	27/03/26	Belize	V31ZY	Not Worked Before	By VE2XB; 160-6m; holiday style operation
19/03/26	31/03/26	Sable I	CY0S	Not Worked Before	By WA4DAN W0GJ + ops; HF; QSL via Club Log OQRS or WA4DAN direct
25/03/26	02/04/26	Martinique	FM/EA1BP	Not Worked Before	By EA1BP as FM/EA1BP; HF; mainly SSB; QRV for WPX SSB using TO70; QSL via EA1BP Buro and Club Log OQRS
26/03/26	30/03/26	Palau	T88KH	Not Worked Before IOTA OC-009 Needed	By JP1RIW fm Koror I (IOTA OC-009, PJ77f); 80-6m; SSB FT8; QRV for CQ WPX SSB
30/03/26	06/04/26	Canary Is	EA8/DA2DX	Worked Before Confirmed IOTA AF-004 Worked Confirmed	By DA2DX as EA8/DA2DX fm Fuerteventura I (IOTA AF-004); HF; CW SSB RTTY FT4 FT8; holiday style operation; QSL via Club Log OQRS or DA2DX direct (no EQSL, no Email QSL)

In a future issue, I will give you a full “Getting Started” guide to Cloudlog and its very feature rich interface.

Did you know you can do real time uploads from your favourite log system and have those exported directly to Qrz, Hrdlog, LOTW and many others? It is just one of my favourites saving me time and effort of saving .adi files and manually submitting them.

I would like to hear from you, what is your favourite log system? Do you still use paper or different devices with the ability to Sync them all?

DARSN / G3DAR Events

We are planning lots of events for 2026. I will try to dedicate a full page every issue so you can see whats coming up!

Sat, 7 Feb at 12:00 – 15:00

145Alive FM and SSB Net

M7DVX will be hosting the FM Net at Hardys Monument (IO80RQ)
2E0TPH will be hosting the SSB Net at Portland Heights (IO80SO)
M3YTQ will also be in attendance for log checking etc.

It is likely that the operational Frequency lists will be published after this Newsletter comes out in which case the Editor will ensure that the Facebook group and both websites darsn.co.uk and wavewizards.org will be updated where required.

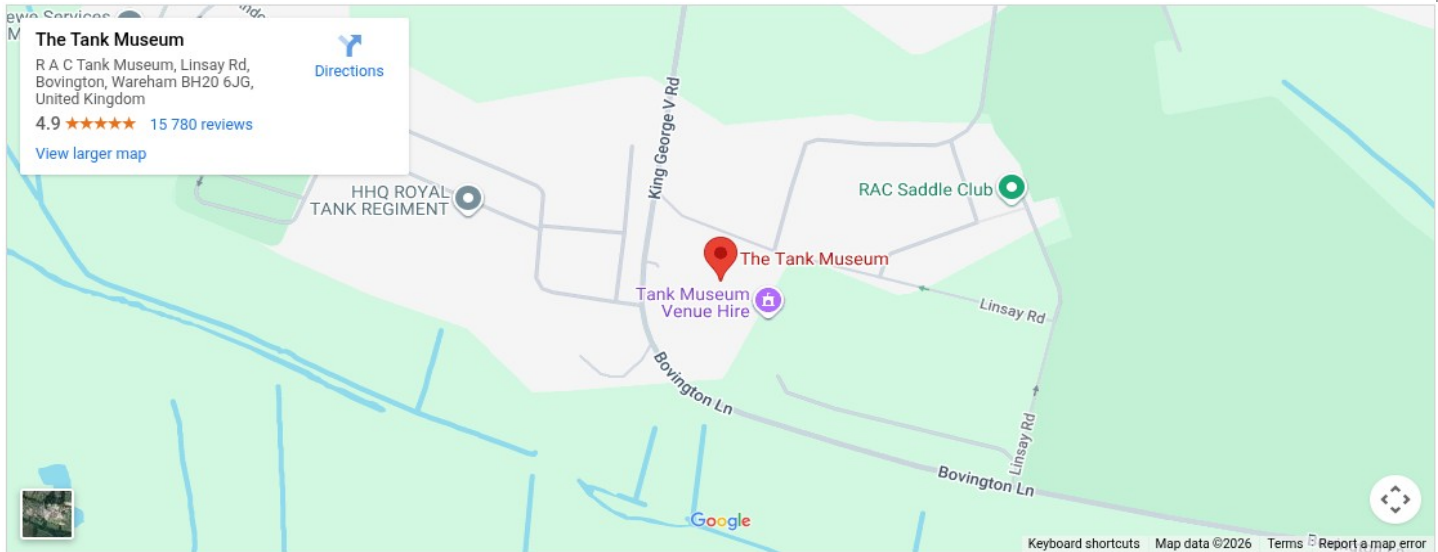
Please keep your eyes open for the information and if you can work a station during the event, please do so. You do not have to stay for the full three hour session unlike the Net Controllers!



21st February 2026

Bovington Tank Museum

[Driving Directions – Click Here](#)



LINSAY RD, BOVINGTON, WAREHAM BH20 6JG



As always, you can find up to date events on the DARSN Website and Facebook Group

Higher Current Power Supplies

OK, so we ended up with a schematic and I showed you the basics of placing components on the Schematic Canvas. Lets go ahead and design a better power supply with a higher power output. For this, we can use the tried and tested TIP2955 which is available from just about ANY electronic parts supply store. [PSU kits are coming to the Shop soon]

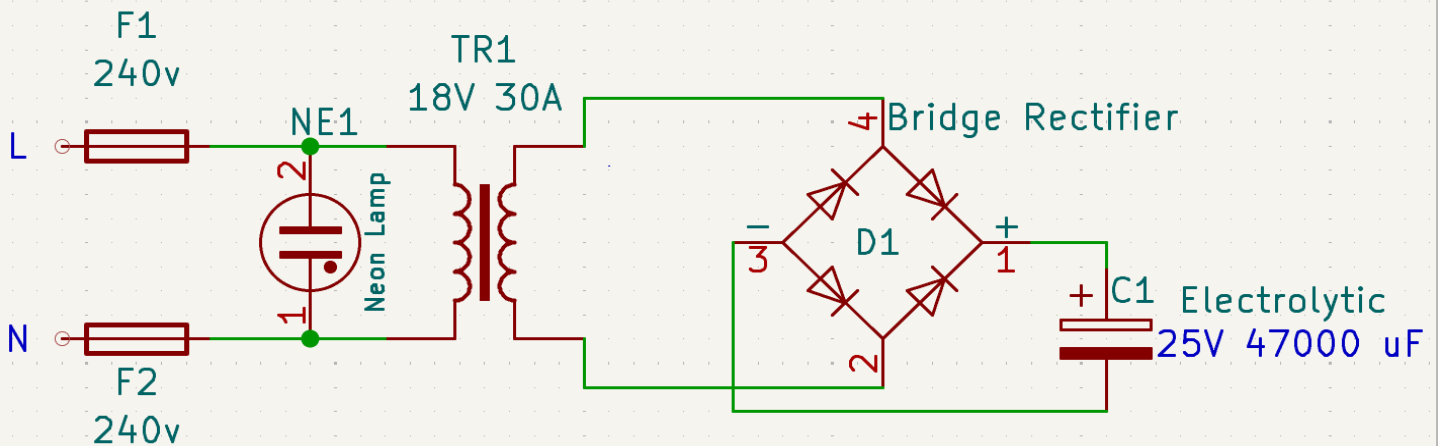
What is the TIP2955 and how does this work?

The schematic below shows a Series Current Pass Transistor. The idea is that the current will flow through the device based on the Base Pin Voltage. You can see the path that the current takes to get to the output. The "Series Pass Transistor" will get quite warm depending on the load that is being powered on the output and as such, we WILL need to use a Heatsink to stop Thermal Cascade [A fancy word for Blowing stuff up - Ed]

You may well need to use a Thermal Pad or Isolator Pad along with a very tiny amount of Heatsink Compound. The Heatsink compound allows the Heat to transfer to the Heatsink in a more efficient way which allows the TIP2955 to stay a little cooler. The compound also fills in micro variations during the manufacturing process so the maximum amount of surface area becomes available for heat transfer.

The difference between Heatsink Compound and an Isolator Pad is that the pad will electrically isolate the case of the component from the Heatsink [An explanation is given later] Now do not go worrying too much about this. A VERY small amount of Heatsink compound will be sufficient for a lot of applications at 12 volts.

Lets start with the power side of the circuit. The Mains feed is coming in from the left side via a fuse. I do like using two fuses, one in each side of the phase. This is just how I like to keep safe. You can use board mounted fuses or chassis mounted inline fuse holders, the choice is yours. I also like to have a visual indicator that the item I am working on is connected. I do like the soft flickering glow of an old school Neon Lamp which can be safely connected across the Live and Neutral as shown. If you wish to use an LED, you can with a current limiting resistor in series although this is sometimes better being used across the secondary output to give you a "Power is on - Mains is Good" indication. Again, there are so many different ways you can use an LED or, if you really want to, use another Neon Lamp.



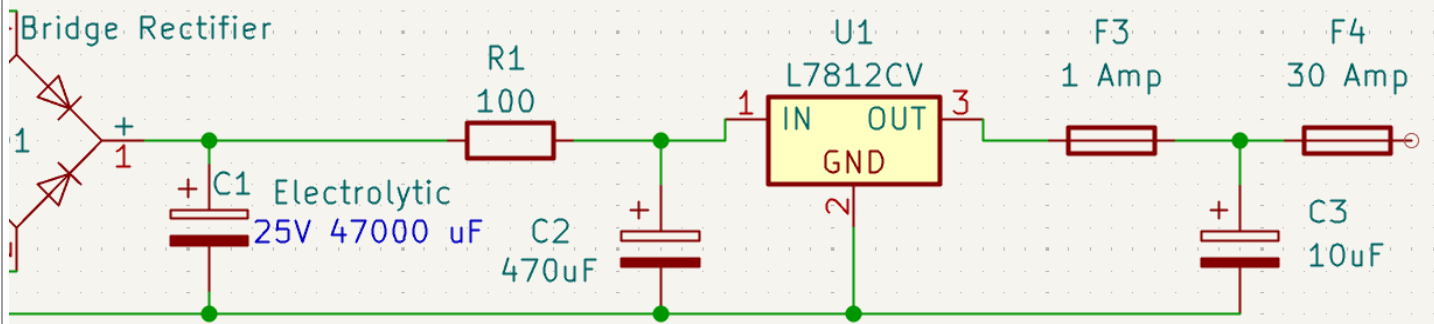
Next we can turn our attention to the Transformer. You should really aim to use a 240v to 18v Transformer. The extra overhead in terms of voltage will help keep the Voltage Regulator stable. Also bear in mind that you will be paying a little extra for a "Better" transformer and if you follow the Circuit and my notes, you WILL have a stable power supply capable of 30Amps at 12Volts.

Using new components for the Bridge Rectifier and Transformer will see this supply last for a very long time. Don't forget you will need an Aluminium Heatsink for full load capability. You could go so far as adding a Thermistor control for temperature Regulation and use a cooling fan mounted across the heatsink to keep things cool.

The Smoothing Capacitor is quite important in this circuit. A good quality 25v 47000uF Electrolytic Cap will really come into its own here. Please don't skimp and use a "Cheap Chinese" Capacitor. You will get what you pay for and cheap is "Trouble" and can come with flames and an insurance claim. Please do not skimp

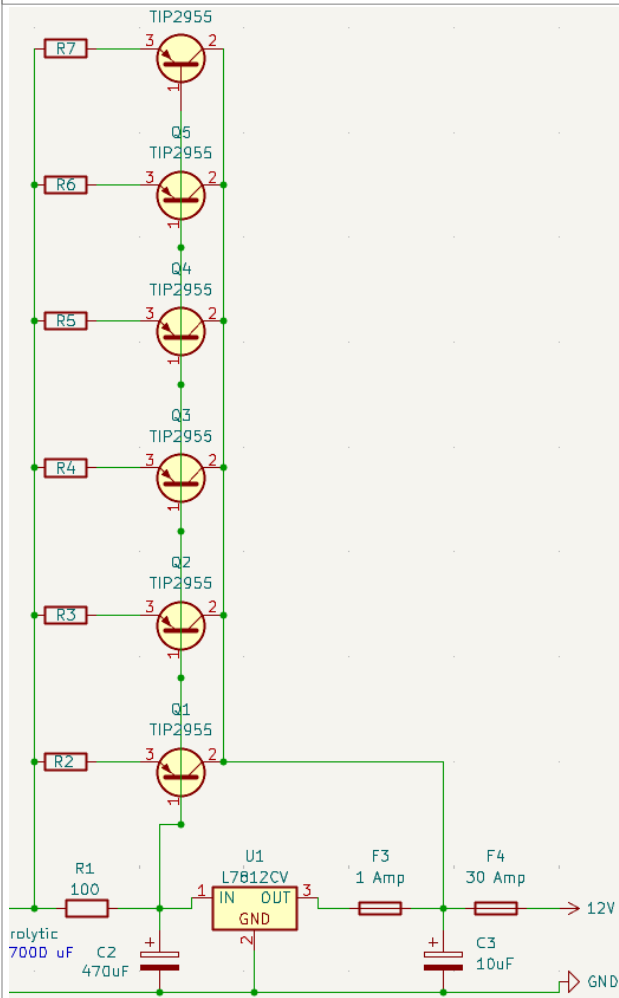
Lets build the next section - Voltage Regulation!

KICAD Cont...



We have now added the circuit Voltage Regulation system. You may be confused as to why we have Fuses F3 and F4, well, this is to protect the Voltage Regulator against one of the series pass transistors should it fail. The TIP2955 transistors do tend to fail in a Shorted State which means the F3 will blow which will also cause a cascade and blow F4 thus protecting what ever device you have connected to the output of the PSU.

Capacitors C2 and C3 will help remove any remaining transient noise. I also imagine that there are a few readers wondering what is the purpose of R1. Well, we are coming to that in the next, and final step. All we need to do now is to add the series pass Transistors to the circuit so we can obtain higher current output. Lets go ahead and look at that.



The Series Pass Transistors (TIP2955) can be seen as a vertical column.

Sometimes it is easier to draw schematics this way and leads to more easily understandable output. It's easy to see now how the circuit divides the power sharing between the devices.

The full schematic is on the next page and is available in its raw format (Kicad .SCH file) on the Facebook files section.

Lets talk about the component values as this is quite important. The TIP2955 is a worthy replacement to the 2N3055 only the TIP device is PNP (2N3055 is NPN) so be careful with changing or substituting parts. Always read the Datasheets for the device to fully understand any limitations.

R1 = 100Ω 0.5 Watt 1% Tolerance (Use a 1 Watt if you can)

R2, R3, R4, R5, R6, R7

0.1Ω 5 WATT Power Resistors (Use 1% or Better)

Q1 – Q6 TIP2955 PNP Power Transistor

U1 = 7812CV 12Volt 1.5Amp Voltage Regulator

C1 = 25Volt 47000 uF Electrolytic Capacitor

C2 = 16Volt 470 uF Electrolytic Capacitor

C3 = 16Volt 10 uF Electrolytic Capacitor

F1 = 240Volt 10Amp

F2 = 240Volt 10Amp

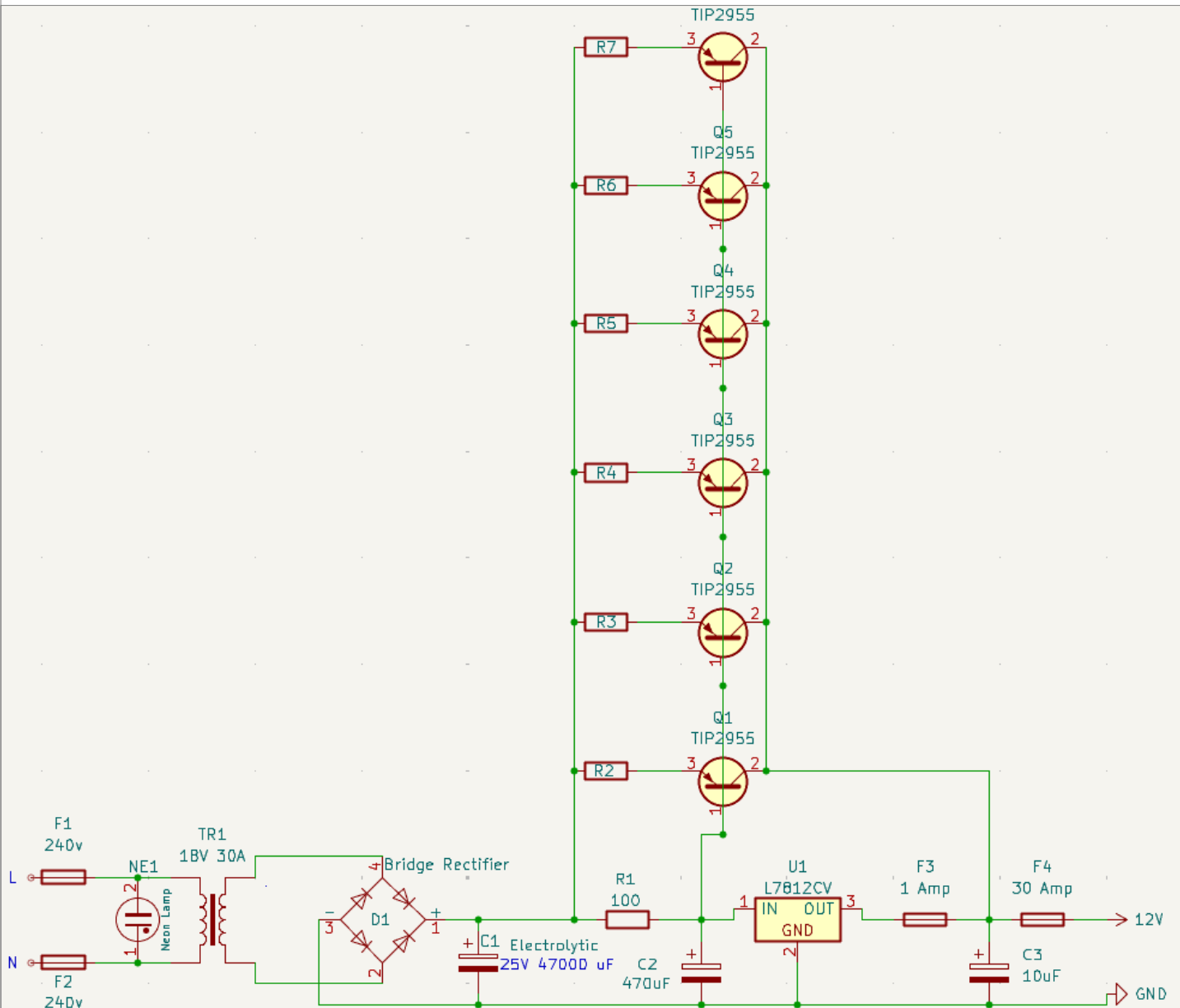
F3 = 12Volt 1Amp

F4 = 12Volt 30Amp

D1 = 240Volt 40Amp Bridge Rectifier

TR1 = 240Volt Primary to 18Volt Secondary 30 to 40Amp
Either Toroidal or Ttraditional EI Laminate core.

KICAD Cont...



I hope you have found this useful. This is one of the easiest power supplies I have ever built.

Just the usual word of warning though, please be careful when handling mains voltages. It can be fatal at the best of times. If this puts you off, you can obtain scrap power supplies at very little cost at your local ham rally. Why not pick one up and take a look inside. You can source some very sought after items by doing this. Heatsinks are not cheap, unless they happen to be salvaged from an old Oscilloscope that you paid a fiver for! In fact, it is possible to ask a Rally seller if they really want to take their item home only to be stuck with it. Why not offer it a new home? Maybe the seller will part with it for the cost of a brew.

If you have any problems or concerns about this schematic please reach out to me admin@wavewizards.org

Other things...



The long established 145Alive net is taking place on the 7th February. This time around it has been decided that SSB will also be catered for as well as the favourite FM mode.

As usual, I will be taking part with John (M3YTQ) assisting in the logging and coffee pouring. [Thanks John – Ed]

Reece (M7DVX) will be at Hardys Monument (IO80RQ) operating the net on FM. I will be on SSB from Portland Heights (IO80SN) which also happens to be a Parks on the Air site. Two birds, one QSO!

As always, it is always appreciated if you could take a moment to call into the net. There is no obligation to stay for the 3 hours! The Net starts at noon and runs for 3 hours until 1500. Feel free to hunt us from some high ground.

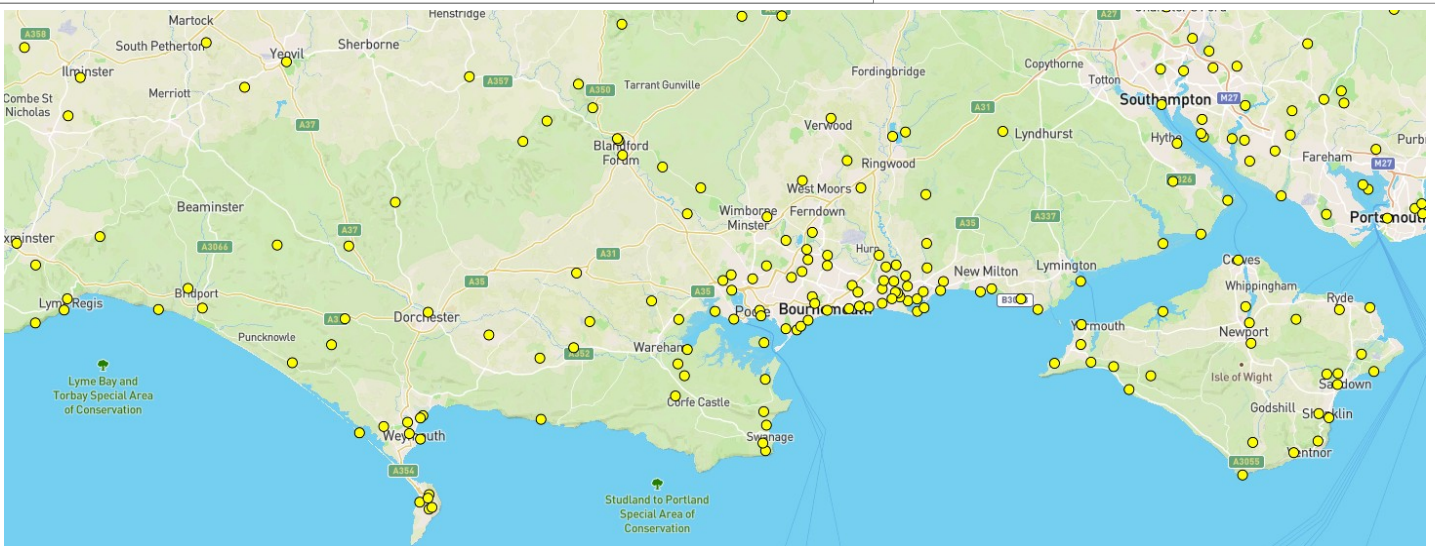
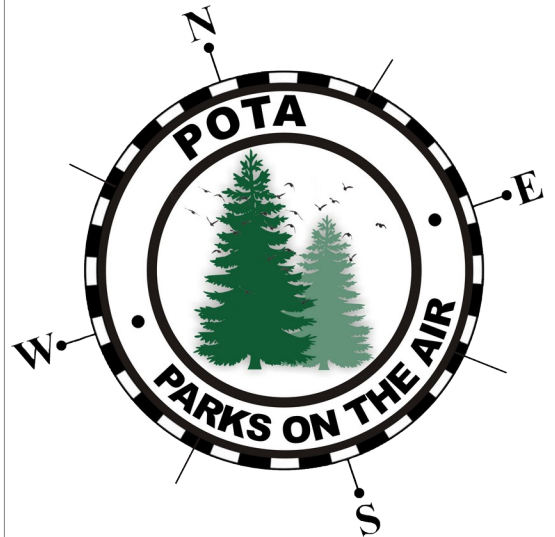
Operational Frequencies will be known very soon. Watch the FB group for details. It is likely that a live stream on YouTube might happen!

POTA or “Parks On The Air”
Have you ever heard of it?

There are qualifying sites all over the world that Amateur Operators can go and “Activate” and win Awards. We have many of these sites in the Dorset and Hampshire Areas [See maps below -Ed]

You can check out my [Profile](https://pota.app/#/profile/2E0TPH) <https://pota.app/#/profile/2E0TPH>

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.



To date there are 5769 recognised sites in the UK alone. You only need to make 10 contacts to call it an “Activation”
It’s great fun so when things get warmer, why not get in touch with me and lets give it a go!

Well, that's this end of the February Newsletter. I hope you have enjoyed this issue.

Coming in the next issue:

How to make your own boards at home. Surface Mount for Beginners and Arduino

Join the [Facebook Group](#) to get the newsletter or download it from <https://www.darsn.co.uk>.

If you would like to contribute articles please get in touch.

Why not submit your story about how you got into this hobby?

Got some pictures of a project you have done and tested?

As usual, a huge thanks to everyone who go out and participate in events and meet ups.

Until next time, keep those finals warm. 73's Tim [2EOTPH - Ed]

[Make a Donation](https://pay.collectiv.com/dorset-amateur-radio-social-network-running-costs-33420) <https://pay.collectiv.com/dorset-amateur-radio-social-network-running-costs-33420>

Lots of merchandise available check out the website for details, let me know if you would like anything. Caps, t-shirts, key rings, sweatshirts, hoodies, chopping boards, pens, lanyards, note books, mugs etc

Please get in touch before you order online and ask about payment methods or see [HERE](#)

We are a not for profit club and all proceeds go towards keeping the club going.

Thank you for your support 2EOVDD

DARSN