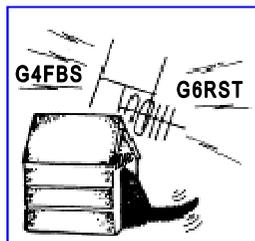


Horndean & District Amateur Radio Club Journal

Volume 5

Number 11

December 2021-January 2022



Club President

Lt Cdr Doug Hotchkiss MBE QCB RN (ret'd) G4BEQ

Club Officers

Chairman	Ken Lindsay GØJWL MA Tel 02392 170548	e-mail: chairman@hdarc.co.uk
Secretary	Ralph Heslop 2E0HES Tel 07428176639	e-mail: secretary@hdarc.co.uk
Treasurer	Bill Kenway 2EØWGK Tel 07976276304	e-mail: treasurer@hdarc.co.uk

Committee Members

Membership Secretary	Alan Waller 2EØFEZ e-mail: alanwaller82@gmail.com
Social Secretary & Exam Secretary Tel: 02392 785568	Julia Tribe GØIUU e-mail: julia.tribe@ntlworld.com
Training Manager	Ken Lindsay GØJWL e-mail: chairman@hdarc.co.uk
Training Associate (ex officio) Tel: 02392 785568	Simon Tribe GØIEY E-mail: simontribe@ntlworld.com
Station Manager Tel: 07724048212	Chris Jacobs MØKTT e-mail: oldbikenut1@gmail.com
Editor see Secretary	Ralph Heslop 2EØHES
Awards Manager	Please contact Stuart GØFYX with any award applications or enquiries
Webmaster (ex-officio)	Neil Stone 2EØLNK e-mail: neil.stone@gmail.com
Printer (ex-officio)	Jon Dunster MØXUE e-mail: m0xue@pm.me
Training Associate (ex-officio)	Frank Cotton GØLFI E-mail: g0lfi1@ntlworld.com
Chairman Understudy (ex-officio)	Mark Reeve 2EØTXZ mark.ratbags@gmail.com

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Articles, letters of interest, photographs are always needed and should be sent to the Editor :- ralphheslop@gmail.com

I use Microsoft Publisher to produce the journal so am happy to accept articles/photographs via email. A Word document or Picture attachment. Just use Journal article or Journal picture as the subject matter.

Opinions expressed in the journal are not necessarily those of the HDARC. The editor has the right to reproduce the articles for our affiliated club journals/newsletters. The Editor decision is always final.

Closing date for next journal is : April 8th 2022

Editorial



Hi Everyone

Inside this issue are the Minutes of the AGM for 2021, my first as the new secretary of the club, and proud to be so, However I do have Stuart looking over my shoulder just in case Hi, Congratulations to all award winners including Stuart who received a long service award

Ralph 2E0HES
Editor

Club Clothing

Sweatshirts Polo-Shirts T-Shirts Fleeces

Sizes: Small = 36 - 38" - Medium = 38 - 40" - Large = 40 - 42" - XL = 42 - 44"

Available with club logo only or logo, name & callsign

Cap - One Size only: with adjustable strap - Stitching in Yellow

Available with callsign only or callsign and/or name

Some items available in various colours, see **Ralph 2E0HES**

All articles appreciated



Any articles you think you have that will entertain your co- members then please send them in to Ralph at ralphheslop@gmail.com

Nuggets from the net



For Sale

All proceeds to club funds



£220 JRC nrd-525 HF receiver these receivers currently sell for up to £600 on various outlets (price reduced)
£180 I-COM R70 hf receiver reviews on e-ham net are good to excellent Price reduced



Hi-mound morse keys 2 available £30 each

£75 ft-1900r/e excellent condition boxed with manual 2 METRE FM

Horndean & District Amateur Radio Club AGM

Minutes of Annual General Meeting Held on the 15th October 2021 at Deverell Hall, Purbrook, Waterlooville. Meeting was opened at 19:30 and attended by 23 members.

1. Apologies for Absence

Trevor Jones 2E0TGJ, Doug Hotchkiss GW4BEQ

2. Minutes of the last meeting and matters arising

Ken gave the meeting time to read the minutes of the last AGM, a show of hands was made and the minutes were passed

3. Presidents report GW4BEQ (read by Simon G0IEY in Doug's absence)

The report was read out as the President wrote it. (The full President's report is printed after the minutes in the journal).

4. Chairman's annual report -Ken Lindsay G0JWL

Ken opened his report by agreeing with the President's report and said that 2 years was a long time to be in the current turbulent times, he reported we had some good zoom meetings and was happy to get people back to the club, now people are getting involved with things that are close to me, outside events, and agreed with Doug we were the best club and need to work to keep up their and our good name. When we lost the Leydene gang times were hard with a drop in membership. We fought back to be one of the biggest in the area, but again agreed with Doug that we need younger people to come into the club and take over the offices that Stuart and I and others have been in and the running of your club. He then thanked Bill for his input and the training team of Julia, Simon and Frank on behalf of the club, Chris for his work as station manager, and Ralph for his input as editor, and for Rod as well. Chris and Rod were thanked for getting the 2 ROTA stations up and running. We need people back up to the Fort (Widley) to work on that old chestnut. We now move on to the financial report

5 Financial report and examination – Bill 2E0WGK

(As with the President's report the figures Bill is referring to are to be printed after the minutes). Bill started by saying he would take questions at the end, and thanked the committee for their support over the year, and the two members for looking over the books. Our position over the year has improved.

and event income was a donation and return of deposits, and the income shows a loyalty to the club which I thank you for and is appreciated. He went on to talk of the ATV group and they pay rent to the club, and this is to increase. It is very welcome. Bill said I don't think anyone would deny it has been a difficult 18 months to 2 years. I haven't sought an increase in membership fees for the coming year, due to your support to me over the past year. I will make a final comment that by this time next year, it is extremely likely that I will be moving away from the area, and you must have a person in place by next year. I look forward to a profitable 2022. Thank you.

6. Club programme for the coming year

Stuart started by saying nothing had been arranged due to a couple of factors. The first being Covid, and the second due to the cost of speakers and the low turnout at some meetings for these people £50 to £60 a time. He asked if some of our members can do a 30 to 45 minute talk in the future.

7. Election of committee officers

Ken G0JWL was nominated as Chairman for another year, proposed by Stuart and duly seconded. Ken reiterated his earlier statement that it would be good to have an understudy for the Chairman's role.

The next was a nomination for Secretary. 2E0HES was proposed by Stuart and duly seconded.

The Treasurer nomination was for Bill 2E0WGK. Proposed and seconded. We need someone to replace him by next AGM.

8. Election of committee members

Committee members M0KTT, G0IUJ, M0XUE, 2E0FEZ and G0FYX, all duly proposed and seconded.

Ken again repeated the need for new blood at this point, and well done to Simon G0IEY, Julia G0IUJ and Frank G0LFI for the training, and Christine M6UBI for organising the raffle. Stuart mentioned at this point, that as well as exam secretary Julia is also the HDARC social secretary. It might be possible to arrange outings next year.

Adrian G0WEJ then told of his plans for the Cornwall trip next year

9. Presentation of awards

9.1-9.4 Constructors awards not contested

9.5 HDARC trophy winner Mike M0CAA. Other finalists were Rod G0ERS and Adrian G0WEJ.

9.6 The John Taylor-Cram Scribe award was won by Mike M0CAA.

9.7 The G4BEQ CW achievement (platinum) awarded to Mike M0CAA.

9.8 The Mike Matthews award. No entries.

9.9 The Alan Blake memorial trophy for training was awarded to Frank G0LFI.

9.10 The Harold Newton award was won by Adrian G0WEJ. [Certificate](#) of Merit to Rob Brown M0RZF, Rod Smith G0ERS and John Wiles G4WQZ.

Adrian G0WEJ was also presented with a certificate for the Club Award (VHF).

Rod then gave a vote of thanks to the committee for all their hard work.

Stuart G0FYX was then awarded a long service certificate and gift voucher for his 30 years as secretary, with thanks from all.

Meeting closed at 20:29

Mr Chairman Officers and fellow members I apologise for my lack of attendance at this AGM but have an appointment at the hospital late afternoon today making it impossible to travel from Wales in time to be with you. I have asked Simon to act on my behalf. Had times been normal I would have asked to change the date but in the present circumstances getting a hospital appointment is harder than drawing her's teeth. This will be the first time I have missed the AGM since 1976. I have stressed many times that this is one of the most important dates in any club/locaties calendar as it is a time when members have the opportunity to question/change the way it is run and it is important that ALL members attend.

I would like to propose a special vote of thanks to the following members who have kept the club running during these difficult times.

Stuart GOPYX and John GAWOZ for running the additional 2 Metre nets on a Tuesday and Friday and for John GAWOZ assisted by Mike MOCAA and Stuart GOPYX for keeping the normal Wednesday net going.

It was also good to see that a couple of Special Stations were run thanks to the efforts of Rod GOERS and Chris MOKT.

I would also like to add to this list by including Julie, Simon, Frank and Christine who do a lot of work behind the scene which often goes unnoticed or appreciated.

Not forgetting of course all committee members doing the various routine but essential jobs needed to keep the club running.

This brings me onto a subject that needs urgently addressing and not something that can be passed on for another year.

Both our Chairman and Secretary have worked relentlessly for several decades keeping this club running but are now both having health problems and need a rest from the many duties and problems of keeping this club afloat.

In the post of a Chairman, or to be politically correct, Chairperson, what is needed is someone who is enthusiastic with leadership and management skills. You do not need to be an expert in amateur radio there are plenty of them in the club, you only need to ask. The Chairperson of the club is a figurehead, ambassador and principle officer of the club. His main duties are to provide the direction of the club by effective leadership and management. He chairs and controls meetings of the committee. He represents the club at external meetings when required. He needs to be confident in public speaking and not waffle. Able to control meetings and ensure everyone has an opportunity to present their views but not dominate the debate.

Having been the Chairman of this club and many organisations I will be the first to admit the hardest job in any club/organisation is that of the Secretary and this club has always been very lucky in its choice of secretaries. Stuart will be a hard act to follow whoever takes over his role I would strongly suggest he understudies him and seeks his advice until he is confident to place his own stamp on the job.

It might also be worth considering if you want me to remain as President?

Finally remember a club is only as good as its members which mean we should all take a good look at ourselves and say "what have I put into the club to make it the best". I will not ask those to put up their hands to admit nothing.

It would appear that we are now getting back to normal so this is a good time for a new start to get the club back to being the best club in the south which means all members must play their part and not burn on seats.

You might need to zoom in on these

Receipts & Payments by Cost Code Report

Hordean & District Amateur All Accounts 16-Oct-2020 - 15-Oct-2021

	Amount	Amount	Amount
BALANCE BROUGHT FORWARD 16-Oct-2020			5,102.01
*DEBTORS		0.00	
*CREDITORS		0.00	
Cashbox		708.13	
Float Account		25.00	
HDARC Account		4,368.88	
RECEIPTS			515.00
4000 REVENUES			
4001 Food and Drink Sales	35.00		
4020 Equipment Sales	10.00		
4022 Sale of SK Equipment	470.00		
4100 OTHER INCOME			531.00
4136 Income from Assets sold		50.00	
4140 Misc. Receipts		111.00	
4150 Gift from Silent Key		50.00	
4160 Cash Transfer to Bank		320.00	
4200 Receipts for Event			158.00
4205 Event income	158.00		
4300 Training			325.50
4305 Foundation Exam fees	240.00		
4320 Training Aids	85.50		
4500 Site Rental			200.00
4510 ATV Group Site fees	200.00		
5000 MEMBERSHIP INCOME			938.00
5001 Membership Fees	938.00		
5100 SPONSORSHIP INCOME			60.00
5101 Advertising Income	60.00		
TOTAL RECEIPTS			2,727.50
PAYMENTS			
7000 COST OF SALES			-100.00
7022 Refund to SK Holder	-100.00		
7100 Accommodation Fees			-1,154.50
7105 Club Venue	-225.00		
7110 Fort Widely	-929.50		
7200 OVERHEADS			-620.79

Clubtreasurer.com Fri Oct 15 15:17:21 UTC 2021 Hordean & District Amateur Radio

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	Amount	Amount	Amount
7204 Printing & Stationary	-21.00		
7206 Insurance Costs	-499.79		
7240 Web Site Maintenance	-100.00		
7300 Training			-132.43
7330 Training Aids	-132.43		
7500 Club Affiliations			-61.00
7505 RSGB Affiliation	-56.00		
7510 RNARS Affiliation Subs	-5.00		
7600 Other payments			-320.00
7660 cash transfer to bank	-320.00		
TOTAL PAYMENTS			-2,388.72
SURPLUS/(DEFICIT) FOR PERIOD			338.78
BALANCE CARRIED FORWARD 15-Oct-2021			5,440.79
*CREDITORS		0.00	
*DEBTORS		0.00	
Float Account		25.00	
Cashbox		635.13	
HDARC Account		4,780.66	

30 years as a Club Secretary

It is my pleasure in writing this article on Mr Stuart Swain G0FYX who did the RAE Course in the 1980s with Mr. Len Newnham G6NZ who was a previous RSGB President.

Stuart joined the HDARC and is a very keen CW operator in contests, has received many awards. In about 1991 he volunteered to act as the Club's Secretary so the existing Officer could step down. During that time Stuart has been an excellent and well organised Secretary.

The club could not have achieved all that it has done over the last 30 years without Stuart giving up valuable time to research and find excellent speakers for club nights, organising trophies for engraving ready to be awarded at the annual AGM, together with the many other roles that may be carried out by a Secretary.

Stuart has decided to step down from his role after a grand 30 years and hand the batten over. He will be a hard act to follow and we will miss what he has achieved but he is to remain a committee member and take over the Awards' Manager's role.

At the clubs AGM on October 15th Stuart was awarded a special certificate and gift card/voucher in recognition for his services as an outstanding and very long continuous serving Secretary of the HDARC.

Article Written by and

Photo supplied by Julia G0IUJY, Hon. Social & Exam Sec for HDARC



HDARC at the Brickworks Museum,

by Stuart G0FYX

Following an enquiry by Chris M0KTT, we received an invitation to attend a special event steam and Halloween event at the Brickworks museum, Swanwick, Southampton on Sunday October 24th from 1100-1600. Their website is: <https://thebrickworksmuseum.org>

Chris couldn't attend as he was away for a Mini event in the Peak District.

Adrian G0WEJ, Dennis 2E0DNN, Ralph 2E0HES and myself attended on behalf of the club. Other club members were invited to come along, but none did.

We had a table allocated in one of the buildings, there were just two 'stalls' in this part of the building, us and a Flea Circus. More of that later.

This event for us was primarily a PR exercise to promote the hobby and also our club, so lots of promotional material was taken along. We hadn't intended to do any operating, but a couple of us took along radios for receive purposes using indoor antennas. I also took along a morse oscillator/memory keyer and a single paddle morse key.

We set up quite quickly, and were ready for the first visitors to arrive, although there were quite a few people already on site, probably exhibitors of the steam traction engines etc. There is good cafe there, and we soon decided a coffee and bacon sandwich was needed. There were other places to get a drink and a cake, and I found this one selling bread pudding. So I had one of those, and bought another one to take home.

The photos on the next page are some that I took on the day, and show various sizes of traction engines, plus a working steam powered saw mill. Very impressive to watch. The chap at the Flea Circus stall was very popular with the children, and he performed various tricks, both there and around the site. He and several others were dressed in typical Halloween attire. Amongst others we did have one family visit the stall. The lady had a go at the morse key, and using the character prompt, sent very nice cw.

The weather was mainly overcast, a little chilly too, but we were under cover. It only started to drizzle as we coming away from the site. Lots to see there, especially brick making, as you would expect.



Adrian G0WEJ, Ralph 2E0HES and
Dennis 2E0DNN at our table.
Picture taken by Stuart G0FYX

The man in charge of the Flea Circus.
I am sure some got out because we
were scratching all day!



A mini steam-powered lorry, with young driver
getting ready to move off.



Left: a scaled-down traction engine
Below: The impressive saw mill



Halloween meets radio



CHANGES TO OUR LICENCES' 'THE EMF APPLICATION'

By now, most of you know (or should as it is now part of our licence), that we the licence holders have to provide proof to Ofcom or its authorised representative that our installations comply as to their safe operation in compliance with the EMF requirements. Which broadly means that 3rd parties are not in any danger of EMF fields created as a result of our radio transmission operations. In effect, it doesn't matter about us the amateur if we do damage to ourselves. There are currently 3 time periods relating to when you should have calculated or tested to show compliance with the new terms of an amateur licence, these are:-

- (a). Until 18th November 2021 for any equipment which operates on frequencies at or above 110MHz
- (b). Until 18th May 2022 for any equipment which operates on frequencies above 10MHz but below 110MHz.
- (c). Until 18th November 2022 for any equipment which operates on frequencies at or below 10MHz.

NOTE 1. If you have a foundation licence you don't need to carry out these calculations as they don't apply to EIRP of 10W or lower. They are said to comply as a result.

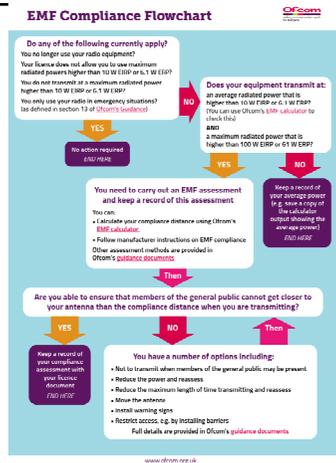
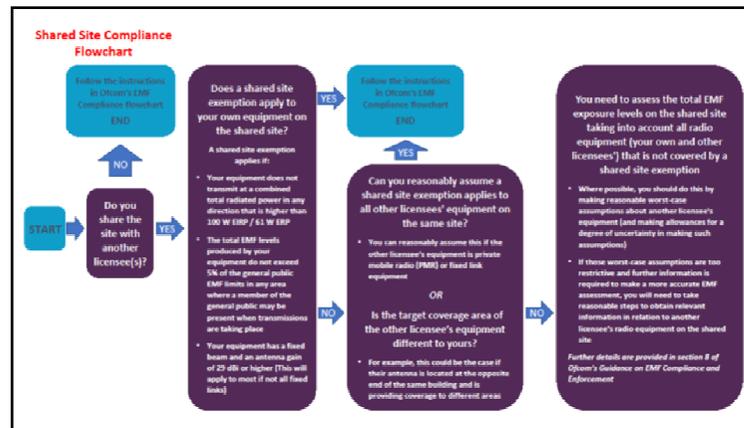
NOTE 2. If Ofcom make any further changes to our licence in future, they may not contact licensees individually. For that reason Ofcom urge us to subscribe to email updates by going to their update page on their web site. (I have and you should be prepared for many updates that don't apply to Amateurs!). Can be interesting reading though. To this end we have to show that we have calculated the strength of those fields and that we can comply with the regulations.

The first important step is to make a plan of one's aerial set up and take measurements between aerials and boundaries of your 'estate'. An idea of neighbouring layout is also desirable as regards proximity. The plan doesn't need to be to scale, just a fair representation, it is the dimensions that have to be fairly accurate. Now one needs to do some calculating! The best calculating programme I have used is one obtainable from the RSGB, it is free and one doesn't have to be a member to download and use it. Apparently it was based on one provided by Ofcom, but I found that one very confusing, but it has been updated since. The RSGB programme is also supported by a video which makes it even clearer of how to use the programme. Again this is free to use. Both the programme and video are found on the RSGB web site.

The programme has drop down menus (highlighted in yellow), which enables one to select an appropriate aerial; feeder, etc. Calculations must be made for every frequency that one uses and relevant aerial also used. What if your set up doesn't comply I hear you ask. The answer is there are variables, such as can you increase the height of the aerial, move it away from a boundary, reduce power and or the time period that the transmitter is operating in any 6 minute period. Any or a combination of these may sort the problem.

I have included 2 flow charts provided on Ofcom's web site helping in the operation to comply or protect 3rd parties from danger. You are required to show and prove to a representative of Ofcom that your installations (STATION), complies with the EMF Regulations and to that end it is best to print off every calculation and also save them to file (and backup). It is also important that any alterations to your station; aerials etc, that fresh calculations are made, printed saved and backed up. It would be a good idea to add the dates and reference to calculations set up in to your log which although not mandatory these days is a very useful document. It also allows one to enter those tests from time to time that is a requirement of the licence.

This article was originally started to be written before the first compliance date comes into force, (18th November 2021) before the EMF requirement compliance became fully a part of our licences. I missed the Journal submission date, but better late than never.
Simon GOIEY.



Curry night

16 diners attended the HDARC visit to the Southwick Park Golf Club for a curry night on Wednesday November 17th..



HV CAAbility PSU, part 2



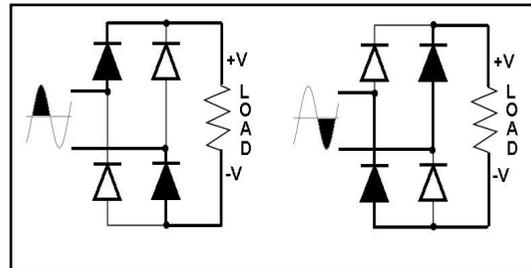
In part 1, we looked at the negative bias supply, investigated AC and how to multiply the output voltage of a mains transformer using a tripler circuit.

The low down

In my wish list for this project I included - a DC supply at 12V regulated at 200mA and 17V unregulated. This came about as the transformer I'm using for the bias supply also has a 14V RMS winding. If you remember when rectified and smoothed the RMS rated voltage will give a DC value of 1.4 times, so 17V.

Now in the junk box I have some old military-spec relays, which must have cost a fortune when new. They're excellent for RF switching and although marked 24V they seem to switch reliably at 17V, so this supply proved very useful.

As we said last time, the peak value of the AC (that gives us 17V DC) is only there at the peaks of the sine wave and we rely on the storage capacitors to keep it up during the low voltage part of the AC waveform. The more current you take the more the capacitor is drained and the more the voltage sags between the peaks. We can help the capacitor by topping it up twice as often by using a bridge rectifier.



Now a diode only conducts when its anode is more positive than its cathode. Imagine we take a diode, put it in series with the AC supply line, connect it to the load and then put a second diode in the return from the load to the other supply line. When the AC output is positive the diodes will conduct and power will flow to the load but during the negative part, the diodes will isolate the load. Now imagine we turn the diodes around. Now when the AC output is negative the diodes will conduct and power will flow to the load. If we take these 2 ideas and combine them, power will flow to the load twice every AC cycle. They're sometimes called routing diodes because they reroute the current to the correct terminal of the load. Now the smoothing capacitor gets topped up twice each cycle so has less time to sag down. The humble diode is a very useful thing.

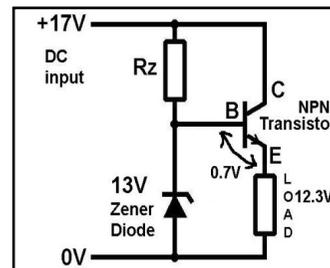
Fight the sag!

That's all very good but we still have a 100Hz ripple on the DC when we take any current, which is OK for relays but rubbish for sensitive electronics. In part 1, I mentioned voltage regulators and that's exactly what we need here, so how do they work? Well first off, the regulated output voltage must be lower than the input voltage (17V), so I'm going to choose 12V. We need something in the line which adjusts the flow of power in response to any change in output voltage. So we'll put a transistor in series with the load.

A basic bi-polar transistor has 3 terminals; The 'Collector' where the power is supplied. The 'Emitter' which is the 'lower' voltage or common terminal and the 'Base' which is the control terminal. Essentially a small change in the current flowing into the base will cause a much bigger change in the current flowing through the collector. The Base-Emitter junction is effectively a diode, so needs to reach about 0.7V before anything happens. Once this voltage is reached, current will start to flow into the Base but the B-E voltage will remain at about 0.7V. The difference between the Base and Collector currents is the current gain of the transistor. That's how we make an amplifier.

Can anyone give me a reference?

We now need to compare the output voltage with a fixed reference and use the difference to control the transistor, rather like adjusting a water tap to maintain the level in a leaky bucket. There's a special type of diode called a Zener that will stay at a fixed voltage when the current through it changes so this can be used as our reference.



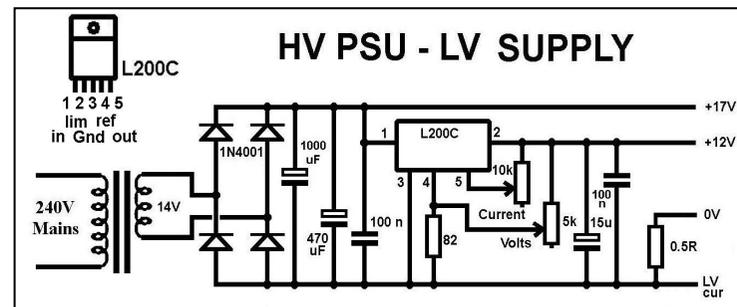
Here's a basic regulator circuit. If we pick a transistor with a current gain of 50, then for 200mA of load current we will need 4mA of base current (1/50). R_z is a resistor to provide power to the zener diode, which stays at close to 13V. Now we know the B-E voltage needs to be about 0.7V before any Base current flows and that the Collector current will 50 times bigger. We can also see that the load will try to pull down the Emitter towards the 0V terminal. So when first connected current will flow through R_z into the Base, turning the transistor on and causing a large current to flow into the load. This current will cause the voltage on the Emitter to rise. However as the zener will try to keep the Base voltage at 13V, so when we get to about 12.3V (across the load) there will no longer be 0.7V across the B-E junction so the transistor will start to turn off.

Balance is everything

So a balance will be struck where just enough current will flow through the transistor to keep the voltage at 12.3V, regardless of whether the load is changed or the supply voltage fluctuates. The circuit works very fast, so as the input goes up and down due to the 100Hz ripple, the transistor will keep the load fed with a constant 12.3V. So we've removed the ripple!

Stop me and buy one!

Now we don't have to build this circuit as we can buy a linear regulator IC (integrated circuit) with a more sophisticated version of the above, like the '78xx' series of ICs. But we can go one better and get an IC which allows us to add adjustments to set the output voltage and also to set the maximum current that can be drawn by the load. The device I'm using is the L200, which has connections for 2 variable resistors to set these values. The input supply must be about 3V higher than the output for it to work but you can get a low dropout device that will work to <1V difference, like the LM2930.

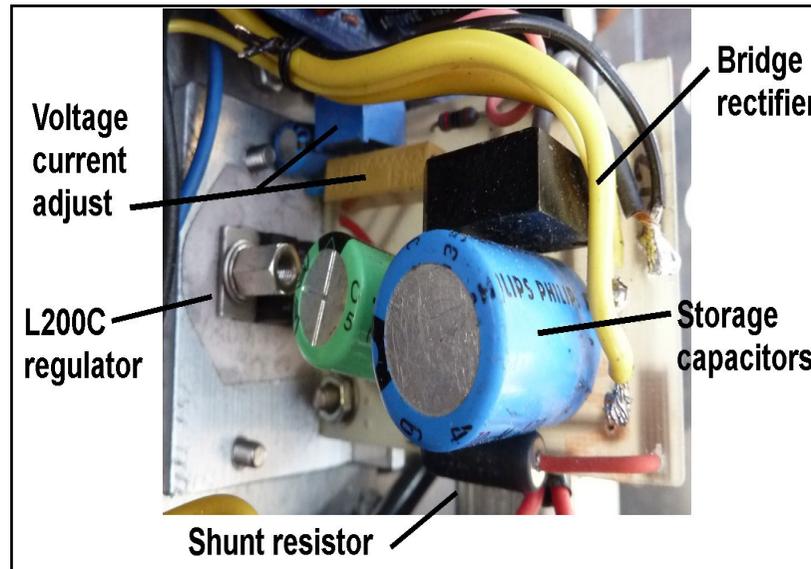


So here's the whole thing: the mains transformer, to reduce the voltage (and isolate us from the mains); the bridge rectifier, to convert AC to DC; the smoothing (or reservoir) capacitors, to maintain the voltage in the low times; then the regulator, to keep the voltage constant and remove any ripple.

The circuit is built up on a small PCB with the regulator bolted to a piece of aluminium angle as a heat sink. It needs an insulating washer as the metal tab is not isolated. You'll see the DC outputs at 12V and 17V are brought out. I fitted a switch on the back so you can select which one comes out on the supply terminals. The current limit pot is set for 220mA to protect the circuit from overload.

What's going on?

Those of you who are still awake may wonder why there's a 0.5 ohm resistor and the 0V rail is marked 'LV cur'. Well it's useful to have some indication on a power supply of what power it's supplying. Now modern stuff uses digital meters - well they're cheap and accurate, but digital displays do have some drawbacks (apart from needing a separate supply). With rapidly fluctuating readings a cheap digital display is a mess of digits. An analogue meter, whilst not as accurate, swings to and fro giving a good idea of what's happening. For this project to look right, I wanted to recycle some wonderful old 1940s moving coil meters. A moving coil meter is comprised of a powerful magnet with a movable coil around it, connected to a spring and a pointer. When a current is passed through the coil it creates a magnetic field which reacts against the magnet and spring to move the pointer. The bigger the current, the more the pointer swings and a scale behind the pointer can be marked to show how much current is flowing. Now you may ask how that helps us measure voltage. Well if you so, as we know the resistance and the current, we can tell the voltage. All we need to do is mark the scale with the equivalent Volts instead of Amps and voila, we have a voltmeter.



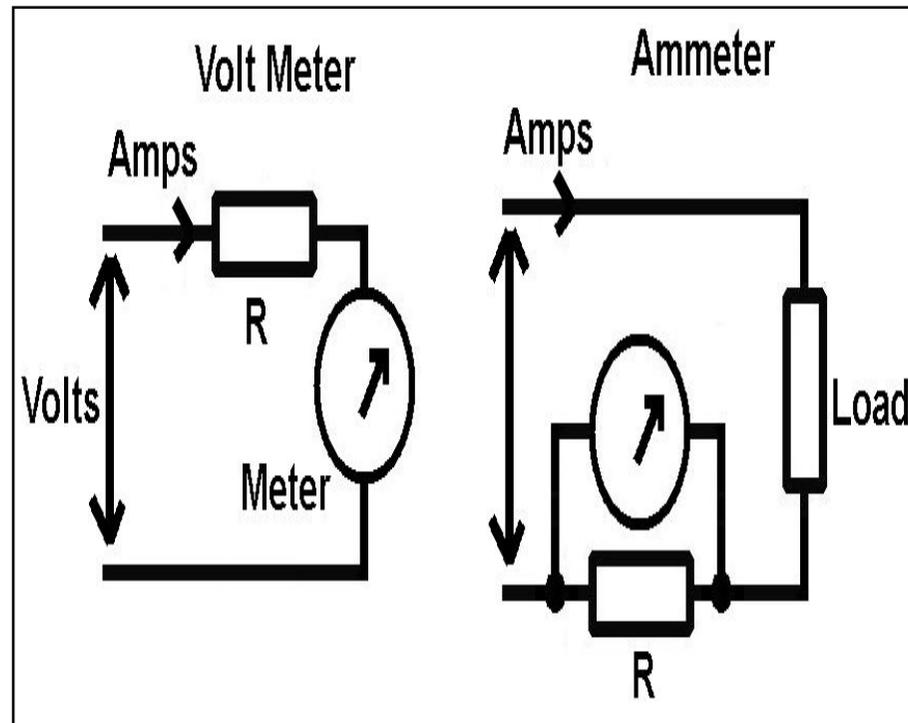
If we used a 100mA meter and we want to measure 800V, the resistor would have to dissipate; $0.1A \times 800V = 80 \text{ watts!}$ That's most of the available power. So we need a very sensitive meter, i.e. 200uA.

Switchery- pokery

We have several supplies to measure (Bias, EHT, HT & LV) so we need a rotary switch to select each supply with its appropriate series resistor (and the meter needs several scales too). You can see the meter switch front centre. Now if you remember the Bias supply can be negative 100V so the meter would read backwards.

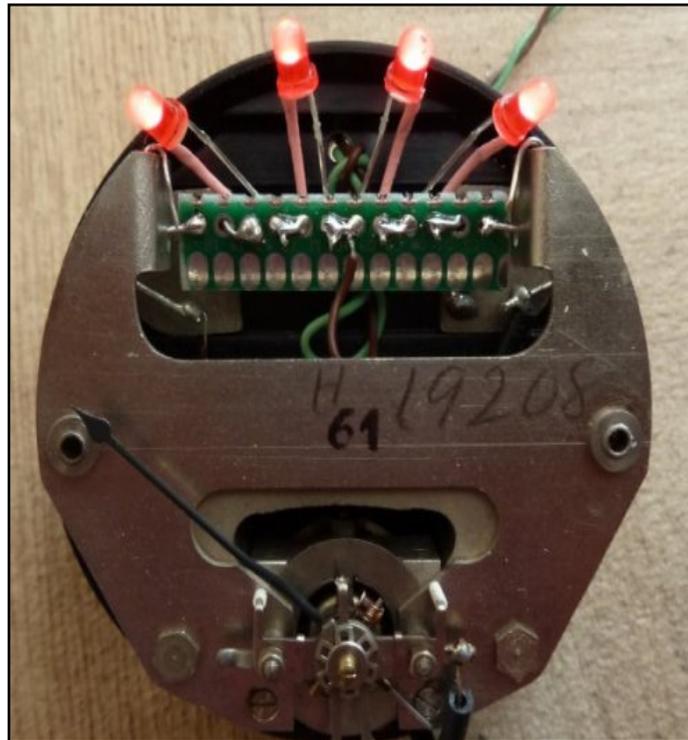
We could switch both sides of the meter and reverse it for the Bias but that would mean having plus and minus supply on adjacent switch contact, a recipe for a fire!

Now remember that bridge rectifier earlier? If we put the meter in the centre of one, then the diodes will route the signal so the meter polarity is always right. Silicon diodes drop 0.7V each but Germanium diodes only drop 0.3V so 2 of them will give an error of 0.6V, not much on 100V. At 12V it would be significant so for the LV supply I decided only to show the 17V unregulated supply, just to give an indication it's working.



So what about a current measurement? Well, putting anything in series with the supply will cause a voltage drop, so we want the lowest resistance possible. Now once again we have several supplies to monitor so the meter will need to be switched between them. The technique is to fit a low value resistor (shunt) in the return rail of each supply and then to use a sensitive meter and switch it between the supply of interest and the common ground terminal. That explains the 0.5 ohm resistor and why the 0V connection is marked 'LV current'

Once again we have the problem of the negative bias supply but this time we can't afford the volt drop of a diode, so the meter must be reversed by switching. A blank position is left between the Bias position and the other supplies to stop any fires! To make it look impressive at night, I fitted 4 red LEDs behind the edge of the dial to illuminate them with that cheery glow from the past.



Coming soon to a cinema near you!

Next time I'll talk about the high voltage supply and how cunning plans, that come to you in the night, turn out to be rubbish - stay tuned!

73/88 M0CAA and M0BOZ

MIRACLE AT DEVERELL HALL

Well I know its Christmas in a few weeks but it was believed that Santa paid an early visit to Deverell hall on Friday 3rd December, Why you may well ask, I am here to report to you that KEN our long serving chairman was seen to purchase a strip of raffle tickets, nobody could remember the last time, it would not have been believed to be true, but quick as a flash Sean M0XAN whipped out his trusty phone and clicked away like a professional paparazzi ,recording the event for posterity, We have had calls from all the major tabloids for the story but we have decided to keep it in-house in the hope it may well happen again. There is no truth in the rumour that Ken found the pound coin on the floor



SOCIALS 2021

Since Covid became a new normality for the country with regards lockdowns, tiers, etc.; from the end of March 2020, lifestyles with indoor/outdoor activities and gatherings ceased to be the same. For the HDARC, we were thrown into lockdown as our meeting venue was closed to all hirer's other than its main nursery/pre-school. Club meetings had to be converted to its regular club night nets and Zoom meetings.

Club social activities ceased, which included the annual Skittles and Christmas Dinner, also the selling surplus radio equipment at rallies. Our annual end of year Christmas party with mince pie and quiz night could not take place either. All the above mentioned activities help to bring additional funds to club as do the training sessions. It was a great relief when that final lockdown enabled the HDARC to start holding its two monthly meetings from our registered venue from August 2020. Mask wearing, taking own refreshments and full sanitising of all equipment we used in hall after meetings as per the rules of the hall management,

allowed the less vulnerable to return first with other members following. A raffle is held during each meeting to help towards funds for club, so after a discussion between the Social Secretary and the committee, it was agreed to book the hall for an additional meeting on December 17th to enable a Christmas party with mince pie and quiz to take place. This was organised by Julia G0IUY and Christine M6UBI, it takes a lot of preparation to organise, firstly sourcing suitable questions, then downloading to computer to print and for those using PowerPoint to arrange and number so they can be shown in the correct sequence. They asked for the venue to be opened to member's families to join in for a fun night as we would not be gathering for the annual Dinner. A total of 100 questions split between the two quiz masters enables for a more varied result with regards total scored. Christine's half consisted of general knowledge and fun sweet questions, whilst Julia's was a mixture of general knowledge together with questions from the Foundation and Full licence levels from the new RSGB Syllabus. I thank Simon G0IEY for transferring these onto a computer so they could be run as a PowerPoint as some were picture questions and easier for members to read once expanded up on a screen. For this reason the quiz night was not run under a team venue like in previous years but as individuals. I think it worked better as scores were varied and allowed a clearer result for 1st, 2nd and 3rd place. I thank Stuart G0FYX for organising the mince pies which were very yummy, and to Christine for agreeing to help with the quiz. We realise it was a lot of questions which in past years has worked out ok but with a later start than normal could have done with fewer questions. Christine and I have therefore agreed to reduce the number of questions for 2022. Once the scores were added we had clear winners for 1st and 2nd this was Rod G0ERS and Chris M0KTT. 3rd place was tied between Andrew and Dennis. All winners were given a bag of mixed chocolates. Christine and I thank you all for joining in and apologise for the late finish as many had to get away, we hope you will be back ready for next year. The evening's raffle was then drawn after prize giving. Thank you to all the members who helped clear the tables and chairs away it is much appreciated.

We hope everyone had a good and safe Christmas and New Year.

With regards club social activities I am looking at May 2022 for a Skittles night but it all depends on how the latest strain goes and if it is safe enough for members to still attend.

PLEASE GIVE ME FEEDBACK.

Julia G0IUY



Horndean & District A.R.C Information.



Club Call signs *G4FBS (Held by MØKTT); G6RST (Held by G4WQZ)*

Club Website <http://www.hdarc.co.uk>
(Maintained by Neil 2E0LNX)

Club Groups.io site *Administrator is Stuart GØFYX*

Club Facebook Page <https://www.facebook.com/hdarc1975/>

Club Twitter Account @HorndeanARC

Club Meetings *Held at Deverell Hall, 84 London Rd, Purbrook,
Waterlooville, Hants. PO7 5JU, on the 1st and
3rd Friday of each month. Commencing at 1900.*

Club Nets ***All times are local and frequencies plus/minus QRM.***

Sunday *0900 CW until about 0930 then SSB on 1950 kHz.
Net controller:- Stuart GØFYX*

*2000 FM 433.450 MHz
Net controller:- John G4WQZ*

Monday *1930 SSB 1950kHz
Net controller:- Stuart GØFYX*

Wednesday & Friday
*1930 FM 145.375 MHz
Net controller:- John G4WQZ*

Club Membership

Joining fee £2 . Annual fee £26. Those aged 10-18 pay half this rate, and under 10's have free junior membership. For Europe and rest of the World fees please contact the Membership Secretary. All annual fees payable on November 1st. If fees not paid by the following January 31st, membership is ended.

News of club members

A reminder about the HDARC 2m nets, now Wednesday and Friday on 145.375 MHz at 1930 local time. An ideal chance to keep in touch with other club members. Please give it a go, and all are welcome. Just call in.

Diary

21st January

“A big signal on topband” a talk by rob M0RZF

4th Febuary

10 minute talks; 4 talented people will give a talk on various subjects

This ‘n’ that

Dates for forthcoming SSB and CW RSGB AFS CONTEST are as follows

SUN 16 TH JAN	1300 TO 1700 UTC	80-40 DATAMODES
SAT 22 ND JAN	1300 TO 1700 UTC	80-40 SSB

Even if you don't take part listen in you may well get the bug

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General Features

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- Current drain as low as 100 mA
- On-line firmware updates
- Only 30mm thick
- Rear folding kickstands
- Size: 90mm x 207mm x 21mm
- Weight: 0.55kg



A liquid-protected housing, no through-holes, spatter resistant plugs with sealing rings and a special anodising layer on the case, ensures operation in extreme conditions.



Unique form-factor

The transceiver is only 30mm thick, including knobs, weighing only 0.55kg, kickstands allow use on a desktop or picnic table.



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This enables rejection of any out-of-band signals and improved reception



Built-in panadapter

See the whole band in an instant - wherever you are listening.



Aluminum alloy body

The transceiver's body is made of durable aluminum by the method of precision milling, to ensure a unique shock protection and provide good heat removal from the output part of the transmitter.



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