TDARS NewsLetter

Issue 238 Nov. 2009

www.TDARS.org www.telfordhamfest.co.uk

Programme

November 18	Members' Construction Project. Digital Modes Interface.
November 25	Surplus Equipment Sale. M/C G8UGL
December 2	Club HQ closed. CM at The Huntsman
December 9	Competition Time. Small teams make a something…(hush, hush)
December 16	TDARS Christmas Dinner @ The Duck at Allscott (aka The Allscott Inn) Booking Form enclosed. Return by Wed. 9th December latest.
December 23	Mulled Wine & Mince Pies Social at LW HQ. A bit of recession cheer...
December 25 (Friday)	Xmas Day Net at 09:00 UTC. 144.600 MHz +/-
December 30	Informal Meeting at LW HQ. New Year's Resolutions, perhaps ?
January 1	New Year's Day net 144.6 and 3.657 MHz +/- bands @ 09:00 hrs
January 6	Open House / HF on Air / Committee (LW Village Hall)
January 13	Transceiver Functions Explained. Just what are all those buttons for?
January 20	"Share a Circuit"- bring along your favourite circuits. Copier available
January 27	Make a 2 metre yagi night. (a la G4EIX design—cost a quid or two…)
February 3	Committee Meeting at the Huntsman.
February 10	Annual 'Under a Fiver' Construction Competition.
February 17	TBA

For Amateur Radio Exam Training—enquiries to Mike G3JKX (01952 299677)
For Morse Training and Morse Proficiency Tests Martyn G3UKV or Eric M0KZB.
For Equipment Loans & Returns Kevin G8UPF

Editorial

Some of us are still waiting for Solar Cycle 24 to kick into action, particularly if your interests are in the 14—50 MHz part of the spectrum, or you just take an interest in the effects of the sun on the earth's ionosphere, as I do. There have been a few hopeful signs for the past few months, but still the solar flux remains stubbornly around the seventies and any sunspots have dissolved into nothing in a very short space of time. We're supposedly almost two years into the new cycle, by which time we would normally expect a solar flux figure around the 120 level, and daily sunspots regularly at the 50 to 60 mark, along with coronal mass ejections, electronic storms etc.. The dullness of the current figures are on a par with counting the number of swine flu cases in the UK., or the number of TDARS members who have been caught out by the Bennett's Bank vehicle speed camera at some time….

Anyway, my mother often reminded me that patience is a virtue ……so perhaps one needs to get on with the next construction project whilst waiting for solar action: : :

There are two main sponsored projects for Members this winter. Building (or in my case commissioning) a data-modes interface and developing a more effective direction finding (DF) system for 144 MHz, ready for summer 2010. The interface unit parts have now arrived and shouldn't take too long to build and try out on your rigs. Dave (G0CER) and Richard's (M1RKH) talk last month demonstrated what could be achieved quite easily—and the presentation is now available via the TDARS reflector files' section of Yahoo. Free software is available from the various web-sites described by Dave, so I'm beginning to run out of excuses for not at least trying to receive some data modes, such as PSK31, SSTV and RTTY on the HF bands. I must admit to a preference for modes that enhance weak signal experiments, such as WSPR and JT65, since a couple of years using a Microwave Modules adaptor (for RTTY and ASCii) , which was quite expensive at that time in the 1980s, I found fairly boring after my initial enthusiasm, because even then 'macros' (ie short memory stores) were being used for the basic exchange of information.

You'll also see (page 1) that at the TDARS meeting of January 27, we hope to construct a number of 2 metre aerials, to the design so successfully followed by Dave G4EIX. These use cheapo steel tape measures, PVC piping, tee pieces and crossover parts, plus hosepipe clamps to make an effective 3 element yagi antenna, as per the last Newsletter. Bring along a few quid to cover cost of bits, and you'll be able to take one home with you that night ! The offset-oscillator module also recommended by Dave will follow in the spring, so long as sufficient interest is shown by members. Once again, the cost of parts will be as low as possible.

MIV

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Information and pictures Web Site www.tdars.org

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Trophies/Certs: G3UKV, M1RKH. QSL Manager David M0EMM
Assistant Curator: Richard M0RKY (07947 351980: text preferred)

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QTC? News & Information

The last few weeks have been very busy in the **TDARS antenna department**, and a bit "hairy" at times. Martin 2E0TRO, as our Rep. on the Village Hall Committee has been negotiating for some extra facilities. So, we have gained permission for a small control and antenna outlet box in the kitchen annex area, which has now been installed (thanks Chris M0ECM) and partially cabled. We also got permission to put up a 'white stick' antenna on the west gable end for 2m/70cm. However, just as the necessary hardware was being raised up a ladder by Chris & Co one recent Saturday morning, a local neighbour took matters into her own hands and 'went ballistic'. No way were we going to put it up as it was visible from her house. To avoid an International Incident, it was decided to halt proceedings and return to Committee for guidance. TDARS Committee decided to hold fire for the time being, as friendly neighbourhood relationships are vital to us, and the 'incident' is to be reported to the V.H. committee at their next meeting, since it was quite aggressive and unpleasant for those on the receiving end.
For the time being, this new **dual-band antenna** has been installed in the loft area, together with a **132ft doublet** of sorts, for HF activities. We all know that indoor antennas are inefficient, and can give rise to EMC issues at times—but that is the compromise for the present. It is likely the 2/70 antenna will be re-positioned outside on the south side of the building some time in the new year, on a separate tilt-over mast if permission is received.
Meanwhile, there have been **problems with one of the microwave beacon** waveguide antennas. Peculiar effects and a high SWR had been noted on the 3400 MHz beacon (9cm band). To our amazement, the outer sheath was found to be open circuit—and this wasn't RG58 lightweight stuff!. It was half-inch, solid copper shielded LDF4-50 heliax coax, fitted with proper connectors etc. Water ingress was found to be the culprit, which had collected within an in-line N type connector, despite being supposedly totally water tight. Once again, this has been fixed (G3UKV & M0ECM) and now radiates an even louder GB3ZME signal. Obviously the problem had been developing over a long period. The final **proposed GB3ZME beacon on 2320 MHz** (13cm band) still has not been forwarded to OfCOM, even though the electronic paperwork was complete and sent to RSGB (via their reputable microwave representative) last February. Hopes for this fourth and final microwave propagation beacon from the Club being operational by Christmas seem to be receding. As they say, it's out of our hands …..

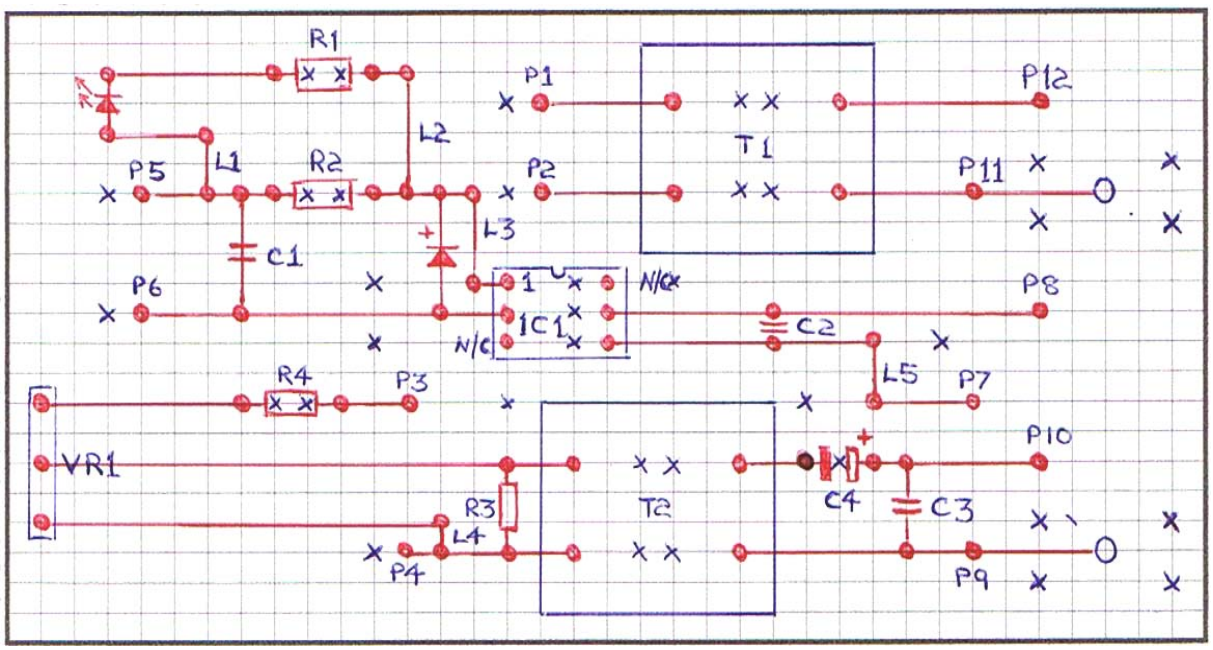
As reported last Newsletter, this year's **2 metre foxhunt winner** had not been declared. I can now reveal that Dave G8VZT and Norman G0ASP are joint winners, working as a team. The DF Trophy will be presented at an appropriate time at a future TDARS meeting. Well done lads, but keep an eye on the opposition in 2010 ….

The proposed **visit to Bletchley Park** has been postponed until next year. The large government sourced grant announced a few weeks ago means the future is bright for this extraordinary place, and a 'Must' for TDARS to visit. Also being arranged behind the scenes is a visit (or two !) to **RAF Shawbury** to see their state-of-the-art flying training simulators and other features. Watch the front page ….

Thanks to Tony M0TAW for an excellent **Quiz Night**. At this time, the results are not known since there was insufficient time on-the-night to mark the entries. Working in pairs was an interesting format, but we must wait for the outcome with bated breath ...

And then there's the TDARS **40th anniversary mugs** … 2009 may have to be extended :

TDARS Digital Interface Project information—by Derek G0EYX



View of component side
Tracks
Underneath view

PC Connections

P1= Line-in or Mic In
P2= Ground
P3= Line out or Speaker out
P4= Ground
P5= To Com. port, pin 7
P6= To Com. port, pin 5

Transceiver Connections

P7= Ground)
P8= PTT)
P9= Ground) via Acc skt.
P10= Mic)
P11= Ground)
P12= Speaker)

Components and Assessories

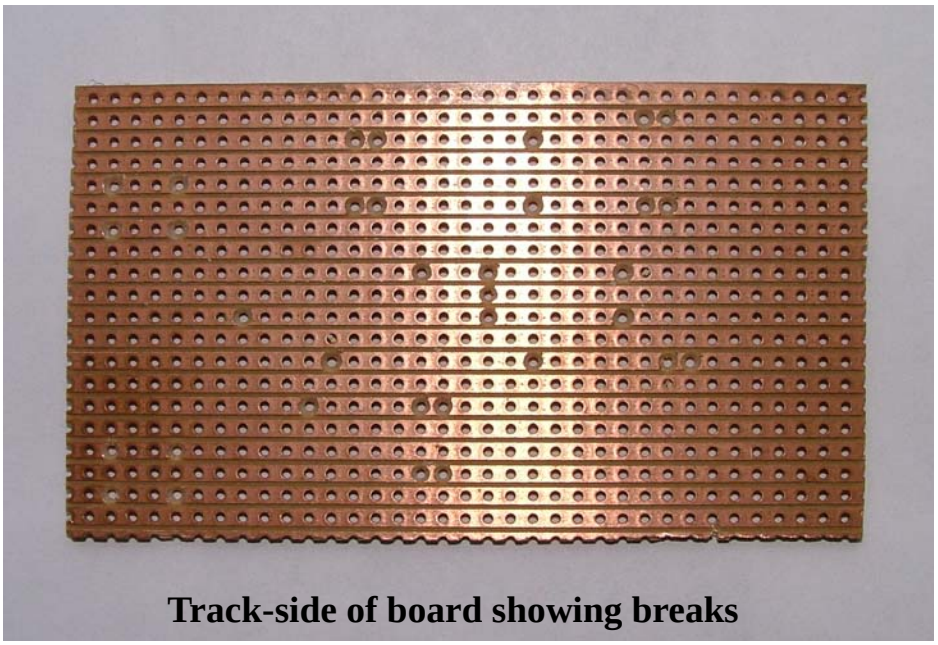
R1-R2-R3. 1K ¼ watt. Resistor
R4 1K2 ¼ watt Resistor
VR1 1K Potentiometer Linear.
C1—C3 0.01µF Ceramic capacitor
C4 2.2µF 50V electrolytic capacitor
IC1 Opto-coupler 4N25
D1 1N4148 diode
T1 –T2 600ohm transformers, type 9000, 1:1
L1—L5. wire links
2*3.5mm Stereo Plugs
1*9pin'D' plug, Com1 or 2 and cover
2 mtr Single core screened audio cable
1 mtr 4 core screened audio cable
Project box 65*100*50, W*D* H.
LED High sensitivity type.
Perforated board , 91* 52mm. (Tracks run the length).
'**X' = Break in tracks on underside**

Note:

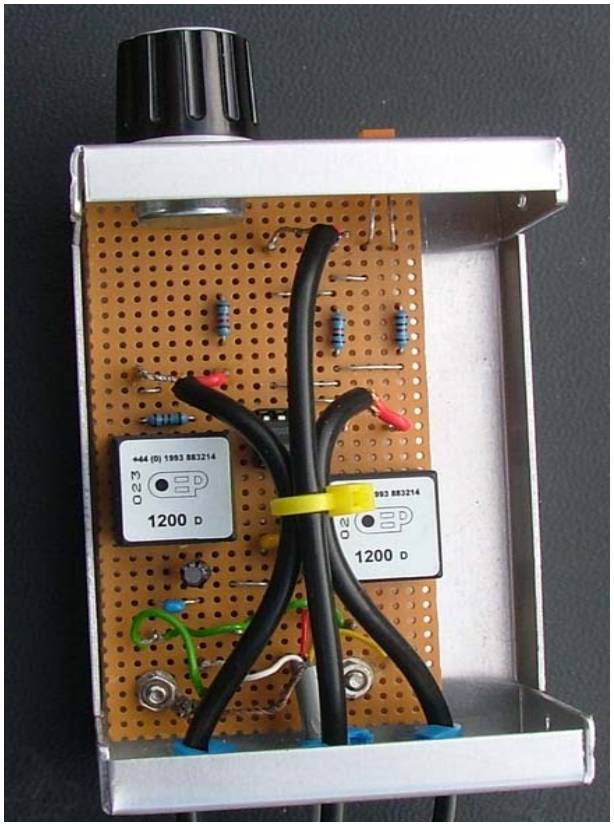
Ensure that PC and Transceiver Ground connections are kept separate.

Enlarged holes on right-hand side(2) for 'stand-offs' to case and Trcvr. ground.

Stereo plug connections: P1 connects to tip. P2 connects to body. Ring NOT used
P3 connects to tip. P4 connects to body. Ring NOT used.

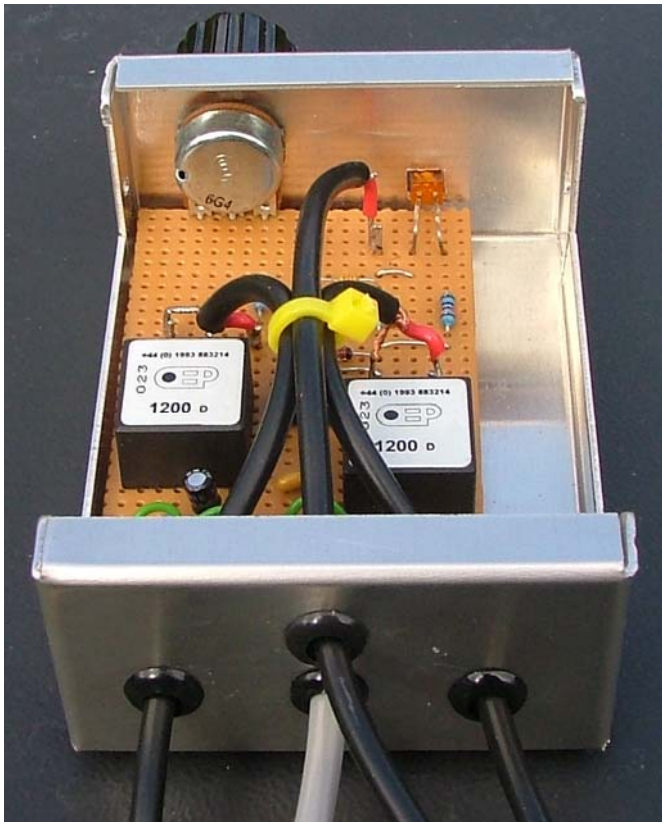


Track-side of board showing breaks



Inside view ‘A’.

Board is supported at the rear with 2* 3mm screws with ‘stand-offs between board and case. Front of board is supported by variable resister shaft mounting.



View of cable exit points.

Drill 6.5mm hole for black cables to achieve a ‘snug fit’ on cables. Grey cable drill 7mm hole.

All transceiver ‘earth’ points connect via green wire to left hand screw.
Tie wraps fitted close to each cable exit and around all at mid-point (yellow tie-wrap), to reduce cable strain

Mike's Piece : November 2009

First, a little puzzle. I was asked to install a cinema surround sound system into a very large living room. There had been a previous installation and the owners had removed all the old kit, except for the rear left and right loudspeaker wiring which was buried beneath the skirting, carpet/furniture etc. The new items had already been unpacked and the owners had noticed that the plugs on each of the long twin wires would not fit the new surround-sound unit, so they had cut the old plugs off. Yes, you've got it; could I re-use the existing cabling and avoid moving all the furniture etc?

Now, as you may realise, the phasing of the loudspeakers in any stereo system is important, so the connections to each speaker have to be the correct way round. Since the twin wires were not covered in coloured plastic, how was I to find out which wire was which, without involving lots of clambering about with long bits of wire and an ohm-meter? I managed this in a few minutes simply using one item from my junk box. What was it and how did I use it? Answer lower down.

Christmas will soon be upon us by the time that you read this and I am going over to the USA visiting my daughter, her husband and the rellies. You may not know but visitors to the USA must now get their visas electronically at the time of booking flights. This is not difficult, but if your passport has less than 6 months to run before it expires, then your visa will be refused.
The answer to the puzzle is simply... a diode! By placing a diode across the remote end of the speaker wiring I was able to tell which wire was which by measuring the resistance at the equipment end of the wires. If the resistance was low then the wire going to the anode of the diode must be +ve. If the resistance was high then the diode must be reverse biased, the anode being connected to the negative. I was thus able to ensure that the phasing of each speaker was correct. An old analogue moving coil multi-meter was used so I had to remember that, on its ohms ranges, the red lead has -ve polarity and black +ve ! Strange but true. On digital meters the lead polarity is correct on the ohms ranges.

I hope to be a lot more active in the shack and on the air, now that my OU studies have been completed. So its BA(Open) after my name now. (Congrats Mike—Ed). Six years work but a great experience. I now wonder why all those coming out of school this year, who could not get university places, don't study with OU instead. It would be a damn sight cheaper and you can fit it in around work. As OU students live at home there would be no student debts either. As for affording it, well the OU will reduce the price to next-to-nothing if you are a non-earner.

Have a very Happy Christmas and hope to see you on the air, or on a licence upgrade course maybe. **Vy 73 Mike G3JKX**

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TELFORD & DISTRICT AMATEUR RADIO SOCIETY.

MEETINGS EVERY WEDNESDAY AT LITTLE WENLOCK VILLAGE HALL UNLESS INDICATED OTHERWISE ON THE FRONT PAGE PROGRAMME. ROOM BOOKED FROM 7PM - 10PM. MEETINGS USUALLY COMMENCE AT 8PM

REMINDER: Paid up Members are welcome to borrow items of Club Equipment, so long as they're returned the following week and the usual "signing out" process is followed strictly. That's a privilege of TDARS Membership. If you can't return it on time, please find someone else who can, or don't borrow it that week! Curator Kevin G8UPF

30m, 5 watts QRP and work the world – well not quite ~~~ by Richard EA6/G0VXG

Since I've being going to Menorca, I have had this desire to build my own rig and work off the north coast headland. It's taken me 8 years, but finally I did it this year.
The kit needed looked like a mini expedition:-
QRP rig, ATU/SWR/PWR meter, interconnecting cables, battery power pack, 2 metal rods, hammer, 2 canes, 7m fishing pole, directors chair, earphones, morse key, paper, pencil, 30m dipole, 50 ohm feeder, cords, table top.

I thought that I'd better make the list, because I could see that I would have everything set up then find I'd forgotten my headphones or something.
I set off on the short journey to the headland at about 0700 UTC and was ready to start by 0720 much to the amusement of the local Spanish fishermen! The broadcast stations are very loud at that time in the morning but the band seemed lively.
I operated on the 9th and 12th October for about 1 1/2 hours.
My first contact was with OK1FAN - Franta shortly followed by DL1KCQ – Ulrich and then a Russian R6VPY – Oleg he sent so fast I could hardly get his name. To overcome the broadcast stations I had to turn the RF gain almost to 0, it was interesting that as time went on the broadcast stations went right down, but so did the contacts.

I had a good contact with GW0VSW – Carl he was using 5W and an indoor loop aerial, RST 579 both ways. (see antenna article page 12 –Ed)
Although my speed did not get above 12WPM it was great fun and hope to do it again one day. Thanks to all the club members who worked me on 20m CW and SSB.

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<u>THANKS</u> to Mike G3JKX, Derek G0EYX, Richard G0VXG, Dave G0CER, Paul M0PNN and Don M0FHM for Newsletter input. Next publication early January. I've never received so much input—11 articles in all !!! Fantastic. I'll hold some over for Newsletter 239: - Ed

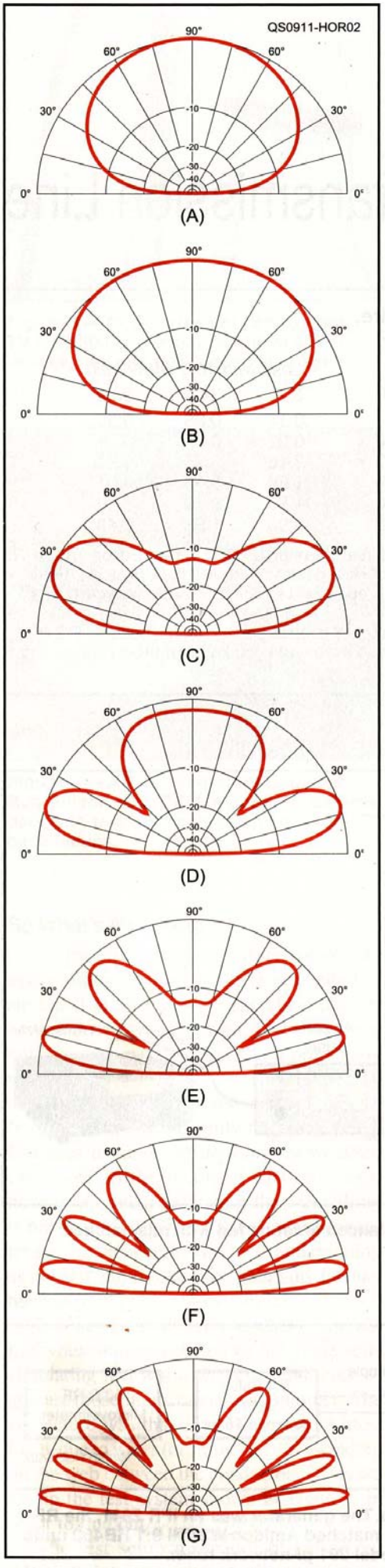

Figure 2 — Six radiation patterns for the dipole at different heights: (A) ⅛ λ, (B) ¼ λ, (C) ½ λ, (D) ¾ λ, (E) 1 λ, (F) 1½ λ, (G) 2 λ.

How High is Your Dipole? By Martyn G3UKV

I've always known that the **height** (as well as the length) of an antenna affects the radiation pattern, but I was still surprised by an article in the November 2009 edition of QST (Publ: ARRL, USA) that really emphasises the point. The author, N0AX has entered the basic parameters of a 20 metre dipole into the EZNEC (www.eznec.com) antenna simulation program, where it's listed as a demo example called the Backyard Dipole ('BYDIPOLE'). He's played around with height above ground (both perfect conducting and actual) and come up with the results shown in these two sets of data. Thus a dipole cut for 14.175 MHz can be from 33 ft to 34.1 ft long, have a feed point impedance from 31.5—73.4 ohms and give up to 7.9 dBi **gain** in its maximum angle of radiation directions, but also up to about 20 dB ***loss*** in some other directions!

The difference in height between 1/4 and 1/2 wavelength height above ground (say 16 and 33 ft) is particularly striking [see (B) and (C) on left]. Low down, the radiation is nearly all above 45 deg, whereas at the greater height, much more radiation is below 30 deg. relative to the horizon. Raising the antenna to 2 wavelengths (G) [say 130 ft - as if…] creates a really mixed bag of results. Looks like a half wave height above ground is likely to be quite a good DX as well as practical antenna, bearing in mind the parallel semi-circular axes are 10 dB spacings on the charts.

Table 1
Variation in Dipole Performance with Height

Height in Wavelengths at 14.175 MHz (feet)	*Resonant Length in Feet (l × f)*	*Feed-point Impedance in Ω (SWR)*	*Max Gain (dBi) at Angle (Degrees)*
⅛ (8.8)	33.0 (467.8)	31.5 (1.59)	7.4 @ 90
¼ (17.4)	32.9 (466.4)	81.7 (1.63)	5.6 @ 62
½ (34.7)	34.1 (483.4)	69.6 (1.39)	7.4 @ 28
¾ (52.0)	33.4 (473.4)	73.4 (1.47)	7.3 @ 18
1 (69.4)	33.9 (480.5)	71.9 (1.44)	7.7 @ 14
1½ (104.1)	33.8 (479.1)	72.0 (1.44)	7.8 @ 9
2 (138.8)	33.8 (479.1)	72.3 (1.45)	7.9 @ 7

A limited version of EZNEC can be downloaded for free, and it includes this example. After you run the program, select FILE, then OPEN the model file 'BYDIPOLE'. Then play around with the parameters.
It's also thought provoking to consider your options with, say, an 80m dipole, where few of us can manage to put one up at 1/2 wavelength (about 135 ft) above ground. We are far more likely to be in the diagram (A) radiation situation — under 1/8 wavelength (~ 33ft) above true ground.
The RF nearly all goes straight up (and back down) !

But, hey ho, things look rather better on 10 or 6 metres ! …..
Try to borrow the November QST mag. from club— the article is worth reading in full. (pages 64-65)

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CONGRATULATIONS to all seven successful Intermediate Amateur Exam Candidates (out of 7 entries !) who passed their exam on November 16th. Club Members included 'Speedy' (M6KLS), Trevor (M6T..) and Dave (M6DTB) - all soon to be 2E0 *. Fantastic results. Mike 'JKX specifically asked me to pass along thanks to all who helped in any way with candidates' practical tasks, catering, instruction sessions and invigilating. (M0ECM, M0EMM, G3UKV, M0TAW, M0RKY, M0KZB and anyone else we've missed). And we mustn't forget Mike G3JKX himself, who organises the overall process, and undertakes the majority of the instruction and practical assessment arrangements.**

WELL DONE also to the gang who put GX3ZME on the air on 160 metres for the Club Calls Contest (November 14th) from Richard's ('VXG) QTH. Preliminary results are 83 scoring QSOs, worth 1169 points. Operators and loggers were Mike G3JKX, Richard G0VXG, Dave G4EIX, and for the first time Phil G0VSJ, whom many of you will know from earlier years at TDARS Dawley Bank. (Also, I see from RadCom, currently active on the 500 KHz band!)

FIRM DATE for 2010 Telford Hamfest: Sunday 5th September 2010 at Enginuity. Don't book your Caribbean Cruise, or whatever, early in September ! (But we all know about 'firm dates', don't we ?)

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Getting a U.S. Licence – e-mail from Dave G0CER / KJ4QAO

I went along to the RSGB conference and saw lots of call-sign badges on folk who I recognise from many a contest and heard their talks - my what a different world some live in! Sorry I couldn't take any-one in along, I was staying a night. It was more like off-planet to be honest.

Anyway - for a tenner I took the US licence - more from novelty and thought a quick C & G type exam might wake a few brain cells. The volunteers who put this on are good folk who take it very seriously. You pay a tenner and can take all the exams you want out of the 3 levels, providing you pass each level to go to the next.

It starts at Technician which is quite basic - although I know nothing about our foundation level, it maybe sub-that. There is no practical and the main gotchas are the US authorities type questions, which can stump any of the levels down below the pass rate if you're unlucky.

The next is General level which is a harder than the first – more technical and more nearly correct answers to try and trick you.

Extra, the last level, is more serious and includes diagrams <shock!> some are set out to really trip you up. Anyway I passed the first two and here, twenty of so days later I have a 'General' callsign for the US area of the US address I can use (you need to have one to take the exam and get the licence).

Anyway the computer didn't like me and has allotted me KJ4QAO. I hope to use it one day - even though my W4/G0CER gives me more capabilities. Maybe I'll actually revise and take my Extra again.

The call-sign lasts till Oct 2019, as long as I don't lose access to my US address during that time.

I believe there are two occasions in the UK each year where it can be taken - one is a radio shop 'rally' and the other the HFC.

Hope this is of interest or use to anyone.

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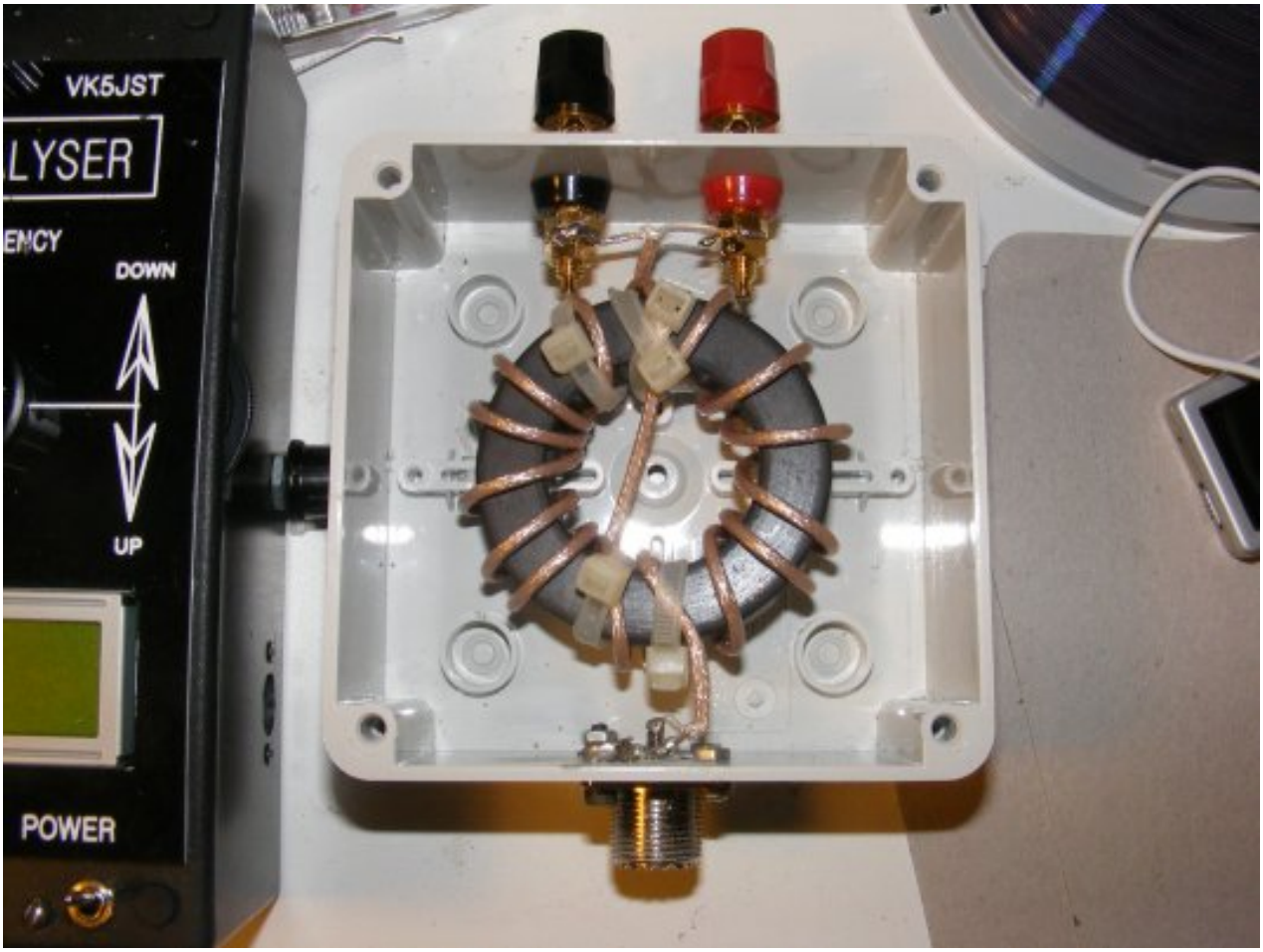
Problems With My Loop— by Paul M0PNN

After passing the foundation in late 2006 and spending quite some time planning my HF setup, a windom for 10-40 metres and a loop antenna for 80 metres was decided upon after consultation with the station manager.
After measuring the available space I was 5 to 10 metres short of a full wave on 80 Metres. A loop antenna as the name implies should be loop shaped, but this on my small plot of land is not possible. There`s vertical and horizontal sections and the height varies between 4 metres and 10 metres. The loop sits inside my windom antenna and I use the wire of the loop to guy the scaffold pole to which one end of the windom is attached. The loop is joined with a dipole centre and 450 ohm twin feeder is brought though the shack wall to an MFJ 969 with built in 4:1 balun.
How well does it work? it's a cloud warmer on 80, which is what I hoped for. As an M3 I was putting out a great signal inter-G with my 10 watts. I have worked 44 DXCC on 80 including the USA and Canada. The loop even out-performs the windom on 15 and 10 at times depending on the angle of the skip.
Everything was going fine with the loop until I passed my Full Licence and started using the full power of my FT857D 100 watts .RF was getting into my FT857D I tried many types of balun 4:1, a coax choke balun, direct feeding with RG213, short length of 450 ohm into 4:1 on roof then RG 213 though shack wall. I even buried a 6 ft 2 inch solid copper rod for an earth, but still the radio re-set. The dummy load showed no problems with the radio re-setting on full power.
Though the 857d is prone to this problem, the situation culminated with my FT857D getting RF into the main cpu and frying it; I was tuning on 80 using 5 watts at the time.
Morale after this event suffered, and resulted in the Station Manager insisting a new radio was purchased and the old one sent for repair.
I posted my problem on junksale and after swapping posts with Steve G3TXQ (Mr Hex beam) he modelled the antenna for me and suggested 450 twin to a 1:1 current (choke balun) on outside wall of shack then coax to tuner.

The Balun Was Constructed So ….

FT240-61 Torroid http://www.2i0nie.com/
RG 316 low loss coax http://www.wifi-antennas.co.uk/
Suitable weather proof box H 11cm L 11cm D 5.5cm
2x terminal posts http://www.maplin.co.uk/ N51AQ
1x SO239 suitable for PL259 plug http://www.maplin.co.uk/ BW85G
Bolts with nuts screws for SO239

A picture says a thousand words > > > >



14 turns on a FT240-61 Torroid 7 on each side please see

http://www.w8ji.com/toroid_balun_winding.htm

The loop now works better than ever: it's a joy to use and tunes 160- 6 metres with no RF in the shack.

VK5JST (antenna analyser) says:

50 MHZ	3.5 swr	28 MHZ	8.5 swr	24MHZ	7.5 swr
21MHZ	7.7 swr	18.1MHZ	1.5 swr	14 MHZ	1.34 swr
10.1 MHZ	4.5 swr	7 MHZ	1.1 swr	5 MHZ	5.5 swr

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Christmas Meal: The Duck at Allscott Inn 16 December 2009

Please note the new name for the Allscott Inn, where we have held our annual Christmas dinner for many years past. Over 30 members and accomplices came last December. The price has increased by a quid (to £15.95), but is still two quid less than most customers pay for the same excellent meal !

One small change this year—we are asking guests to pay collectively after the meal (ie someone will come round and collect ££) as there was a slight problem last year paying individually. Do come and join us—especially if you've not come previously.

Booking form attached to this Newsletter—please complete before the deadline (Dec. 9th)

THANK YOU

www.tdars.org www.gb7sy.net

The Club website has been going for 4 years and now has a vast amount of information and data on many subjects around Amateur Radio. All the latest club news, projects, programme, and all the News Letters.

The hits score has been averaging at 2006=198, 2007=201, 2008=296, and 2009 (so far) =344; an increase every year.

Now as we enter the winter period I am looking for information, additions, and ideas, so we continue to improve and develop our TDARS website.

There is also the D-Star website with all the information about this developing amateur radio technology, including “MidStar UK”.

Keep looking at these websites for all the latest news and information.

You can contact me via the website or don@m0fhm.net

Don Sunderland **M0FHM**

www.tdars.org www.gb7sy.net

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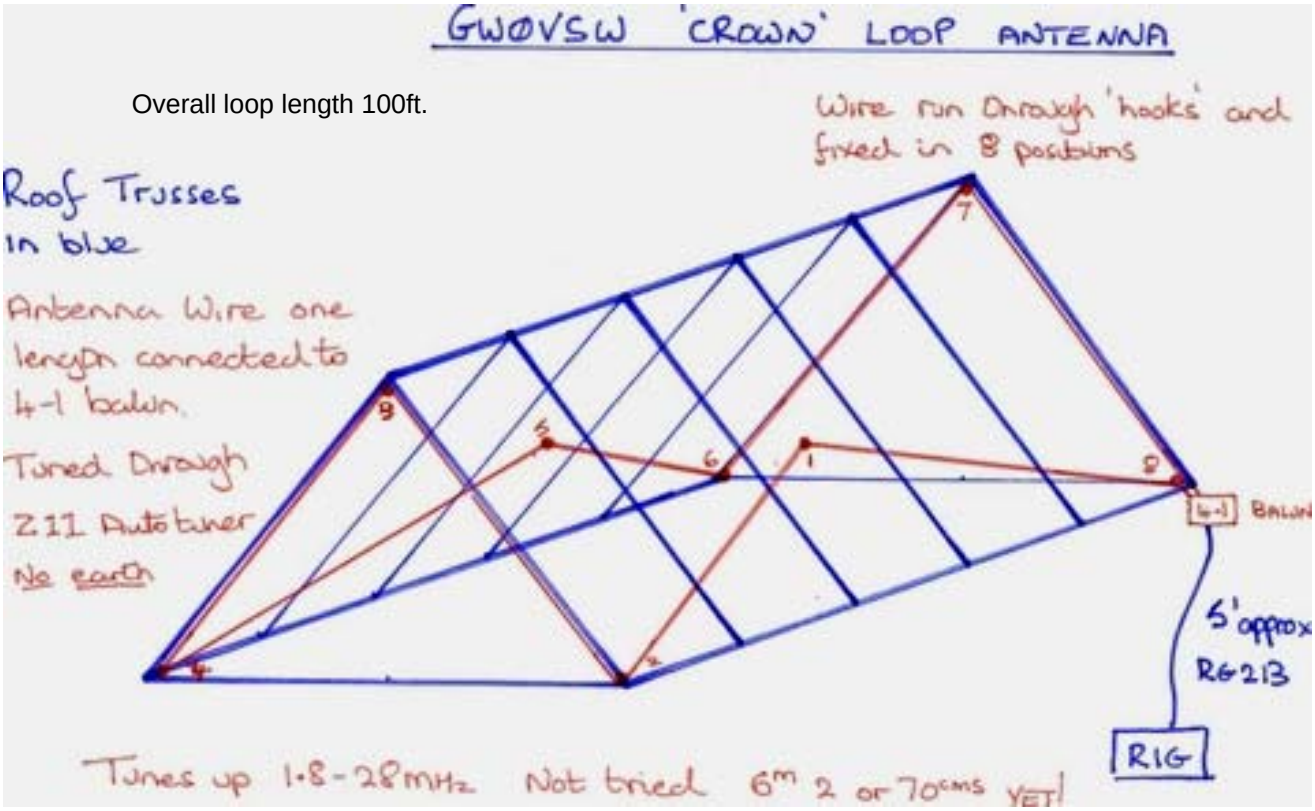
The diagram below is fairly self explanatory. **Richard G0VXG posted it** on our TDARS Reflector :

“Hi All

This may be of interest - it is an indoor loop aerial with a clever way of making it resonant, if your loft is a bit small. This is Carl's GW0VSW idea and he calls it a Crown loop antenna. I Worked him whilst I was away, we were both QRP. “



Annual TDARS Christmas Dinner at The Duck at Allscott Inn Wed. 16th December 2009

Booking Form: Please return by Wed. Dec. 9th latest:

Please use this page to make your Booking ASAP, or by Wednesday 9 th December at the very latest. Pass it, e-mail or post it to Martyn G3UKV. The cost is £15.95 per person, payable on the night. Late cancellations may have to be paid for.

NAME: …… 7.30 FOR 8PM.

MENU	NUMBER REQUIRED
Tomato & Chive Soup with warm rustic bread	
Crispy filo basket with creamy garlic mushrooms & side salad	
Grilled Trout Fillet on mixed salad with honey + mustard dressing	
Smooth Duck & Orange Pate served with chutney & rustic bread	
King Prawns on mixed leaves with rose marie sauce	
Smoked Mackerel Fishcake with sweet chilli dip	
**********	**********
Shropshire Turkey with pigs in blankets and a lemon & thyme stuffing	
Roast Shropshire Beef with Yorkshire pudding	
Chicken Breast butterflied in a creamy mushroom & white wine sauce	
Scottish Salmon Supreme, oven baked with lemon & dill sauce	
Caramelised Red Onion & Sage Tart with red pesto & grilled goats cheese (vegetarian)	
10 oz Ribeye Steak (cooked to your liking,) served with mushrooms, tomatoes & onion rings - chips optional. (£2 extra)	
**********	**********
Traditional Christmas Pudding topped with brandy sauce	
Apple, Pear and Raspberry Crumble	
Mega Chocolate Fudge Cake served warm with ice-cream	
Strawberry Sundae	
Lemon Meringue Roulade served with cream	
Vanilla Cheesecake with Butterscotch sauce.	

Coffee or Tea with mints served afterwards.

The Duck at Allscott Inn (tel: 01952 248484) is located on the B4394 Road, right next to the closed sugar beet factory site, about 3 miles west of Wellington. **Partner, Friend & Family WELCOME !**