

Derby & District Amateur Radio Society

(Inc. Derby Wireless Club, 1911)

Affiliated to the R.S.G.B.

Call signs: G2DJ and G3ERD

Newsletter - October 2012

Welcome to the October DADARS newsletter.

The club supported various radio events during the last three month period including: the 80m club championship contest on 11th July, the 80m sprint on 23rd August, 'Churches on the air' weekend, the 'Beefstock' music festival and 'Railways on the air'.

Good daytime radio conditions on 80m and 40m during the period helped make the events a success with plenty of stations worked and a chance to speak to old friends on the bands. The conditions were very different to those last year when propagation was relatively poor for months on end.

The club normally supports the annual Ham Fest at Newark in September and this year was no exception. Over the last 18 months, the club accumulated a significant quantity of surplus equipment including HF/VHF transceivers and lots of valuable 'junk' left over from surplus sales. We hired a two-table stand in the 'Club-land' area at the National Ham Fest and cleared the vast majority. This represented a lot of work for individuals but it was fun and rewarding. Dave, G1VAB kindly provided a more detailed report later in the newsletter.

Looking ahead, we have an illustrated talk on Tuesday 23rd October on the work of the RAIBC by Russell G0OKD. The RAIBC is a national society and charity, dedicated to supporting radio amateurs and short-wave listeners with disabilities and was established in 1954.

On Saturday 3rd November we look forward to the club annual bonfire. This is a chance to invite the family for a fun night out scoffing sausage rolls and experiencing heart burn. Don't forget to bring plenty of wood.

I would like to say a big thank you to the people who provided articles for this edition of the newsletter. It makes my life easier and increases both the scope and quality of content. If possible and if the membership wants, I would like to include at least one technical article in future editions. This could be on almost any subject ranging from beer brewing tips to digital signal processing. I am looking for a volunteer to do something for the January edition. Any takers?

Chris G4AKE

Derby & DARS future programme

October

- 16th. Video Show
- 23rd. The work of the RAIBC.
Illustrated talk by
Russell G0OKD
- 30th. Night on the air

November

- 3rd. Bonfire night
- 6th. Junk Sale
- 13th. Committee Meeting
- 20th. Technical Topics
- 27th. Night on the air

December

- 4th. Junk Sale
- 11th. Committee Meeting
- 18th. Christmas Social
evening
- 25th. No meeting - Christmas!

January 2013

- 1st. New Year Junk Sale
- 8th. Committee Meeting
- 15th. Colditz - illustrated talk
by Martin G3SZJ
- 22nd. Video Show
- 29th. Night on the Air

February

- 5th. Junk Sale
- 12th. Committee Meeting
- 19th. The 18 set.
A demonstration of a
vintage radio by Colin
Baker



Beefstock Music Festival
14th July 2012
Jenny G4EYM

Saturday July 14th - we had looked at the site the previous weekend and a lot of it had been or was underwater! Luckily (or miraculously) the following week was mainly dry. We arrived at the farm early and decided we would position the station by the fence away from the boggy edge.

Martin managed to drive to the spot where we unloaded the gear from the car - a bit of wheel spin in the soft ground when he went to pull away to go and park on the dry farm yard.

We erected the gazebo and put up the table and David G8FPA arrived to assist us. The 'UNU' aerial was put up by strapping the poles to the fence posts nearby. Switching on the IC7000 and 12" monitor we found the SWR going haywire! After various attempts to correct this we agreed there must be a fault in the aerial tuner (it turned out to be a dry joint). Martin rigged up a dipole and we set to work. Unfortunately the loud speakers from the music stage were pointed in our direction and more often than not overpowered our listening ability. Nevertheless we ploughed on and worked stations across Europe and the United States including: Croatia, Ireland, Cyprus, Switzerland and Ukraine to name a few.

By early afternoon the sun was out and it was really warm but by about 3.30pm it clouded over and began to rain - though this didn't dampen the music. We finally gave up about 4.30pm when the music seemed to be getting even louder. Still we all agreed we had had a good day and thank you to David for taking the time to come and help. We arrived home very tired and a bit muddy but we had done our bit.

Next year we will go further back!!

Jenny G4EYM



Figure 1 - David G8FPA operating and Jenny G4EYM Logging



Figure 2 - David G8FPA Operating on 21 MHz

Churches on the Air - September Dave, G1VAB

St. Osmunds Church on London Road in Derby was the Society's home for a day and a half in September when we put on a station for the annual "Churches on the air" event.

Again we were able to operate with the callsign GB1SOC (SOC = St Osmunds Church) and we used a home-made 40m dipole at about 16 feet at the feed point and a Yaesu FT-990 providing the RF from the 'shack' located in the aisle at the side of the Church. This was the first time we have used this rig and we had some lovely reports on the quality of the audio. Please remember we were in a Church with the usual echo and how much that added to the transmitted audio I don't know, but it was very nice indeed to get such good reports from a majority of the 69 contacts we made.



Figure 3 - Dave G1VAB and Clive2E1HVZ

A good number of members were on hand to help in many ways - Clive 2E1HVZ, David G7GJI/G8QZ, Chris G4AKE, Ian G4EAN, Martin G3SZJ, Jenny G4EYM, and your scribe, all of us enjoying the cups of tea that made their way down from the Church Ladies.

By the time we'd got on air and with a close-down time of 16:30 we didn't seem to have that long to have a play to get used to the rig and get some contacts into the log, so we went back again on the Sunday afternoon for another three hours of operating. Another good haul of contacts, the 40m band really coming good again and over the weekend we managed a word with Harry Hogg, G3NGX, who was assisting at the Christ Church Cathedral in Oxford and also a member of the Society. All in all a very successful weekend with the number of contacts made, the condition of the band was excellent, and a big thanks to the members who came along in support.

Dave, G1VAB



Figure 4 - Dave G1VAB in full flow

GX3ERD/P**Railways on the Air - September
Dave, G1VAB**

Using the same aerial, mast and feeder as the "Churches on the Air", we erected them again for the third time in a fortnight, this time alongside West Shed at Swanwick. Once again, the Princess Royal Class Locomotive Trust had agreed to host our putting on the GX3ERD/P club callsign for this weekend, and what a good weekend it was too!

Forty metres seemed to be the 'band of the moment' and we bagged 75 other radio stations in total. Yes, other "ROTA" stations may well have got more into their logs, but one of those we worked was someone who was pleased to hear that the 'Duchess of Sutherland' locomotive was back in the West Shed, her 'home', as he was keen to tell us he was actually a fire-man who had worked on the footplate of this Royal locomotive. A definite case of where radio can bring a situation to life – and that gives someone a little lift in life too. Good contact there; in fact all the contacts were good, nearly every station coming in at 59 on the meter with just the occasional 57 and similar reports coming in regarding our signal too. As one station put it, "one of the strongest on the band" – and that was with the Society's FT-897 as the FT-990 wasn't available. We must be doing something right!



Figure 5 - Chris G4AKE and Clive 2E1HVZ. That's a big engine!

Again the "A" team were out – Clive 2E1HVZ, David G7GJI/G8QZ, and Chris G4AKE as well as Yours Truly so thanks are due to them for their assistance. Thanks guys! Since the event I've been in touch with the Trust who were pleased to hear the story of the fire-man and have also given permission for us to use a picture of theirs as a QSL card, so that must mean they want us back again in 2013. Good news indeed!

Dave, G1VAB

New kit for the Society!

Earlier in the newsletter there was mention of an FT-990 being used for September's "Churches on the Air" event. This transceiver had been the property of a member of the Society, Alan Dunford G3XOF, who had sadly become a SK earlier this year. It was during that weekend that we were told that the rig sounded great, even 'silky-smooth' as a Society member reported when monitoring it at home. Following the weekend Mrs Dunford was contacted and she was so pleased that we are in a position to put Alan's rig to such good use. We decided to leave Alan's engraved callsign label on the microphone in memory of him.



Figure 6 - Our new shiny FT-990

Polo Shirts

Also in the 'new kit' department is the news that we are shortly be able to have Royal Blue polo and sweat shirts embroidered with the Morse key 'logo' in the centre, and the words "Derby And District Amateur Radio Society" around it. Name and/or callsign can be embroidered for no extra charge when having the logo put on. Shirt prices are not to exceed £20 per item and hopefully we're to get the people who embroider them to the Society so yours can be embroidered on the spot. More news as and when it happens.

Antenna Mast

A decision was made by the committee to purchase an antenna support for use during portable operations. The spiderbeam HD 12m fibreglass pole was the preferred choice as it extends to 40 feet and is constructed from twelve 1.18m long heavy duty 2mm UV protected fibreglass sections that weighs only 3.3kg in total.

It looks like a very nice piece of kit. The company also manufactures an 18m (60 ft) version and an awesome 26m (85 ft) pole that is just the ticket for 160m! See <http://www.spiderbeam.com>. All we need now is an excuse to put on a station and try it out.



CAT Interface Cables

For contest and special events use, we intend using logging software with radio interfaces to log frequency and modes automatically. Consequently we purchased CAT (Computer Aided Transceiver) cables to interface a PC to the Yaesu FT-897 and the FT-990. The interface on these transceivers is a moribund RS232 type serial interface. I say RS232 type because the RS232 standard refers to pin layout and connector types rather than electrical specifications. However, most people understand what is meant by the term. Two problems exist with CAT cables:

1. Laptop and net-book computers do not support serial ports (because they are obsolete).
2. The FT-897 and the FT-990 come with a cheapskate 5V TTL interface rather than a conventional RS232 interface.

The solution is to use a chip to convert from USB to RS232 and create a 'virtual' serial drive on the laptop. The level changing from (typically) +/- 12V to +5V/0V is achieved using a MAX232 chip designed specifically for this purpose. The result is a lot of 'gubbins' for a low performance interface. Fortunately, these interfaces can be purchased readymade complete with cables and connectors from G4ZLP <http://www.g4zlp.co.uk/unified/YaesuCAT.shtml>.

Contest News

Derby Wireless Club is back on the contest trail after a much too long absence. However, our first few attempts were somewhat pitiful compared to the competition. Automation and practice will help bolster our scores.

Table 1 - Contest Activity

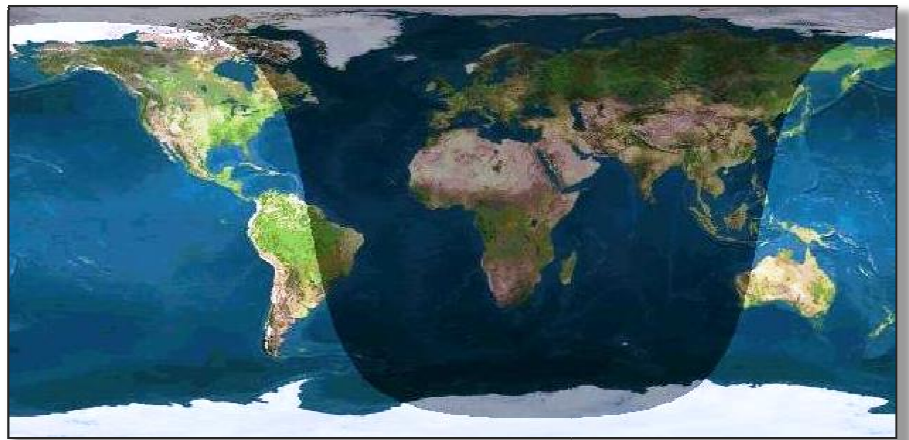
Date	Mode	Band	Time	Description	Status
21 st June 2012	SSB	80M	19.00-20.30z	Club Championship	Completed
11 th July 2012	SSB	80M	19.00-20.30z	Club Championship	Completed
23 rd August 2012	SSB	80M	19.00-20.00z	Sprint	Completed
7 th October 2012	MIX	15/10M	07.00-19.00z	Massive annual event	Missed it
18 th November 2012	MIX	Any	All Day	Valve QRP Day	Possibility
24/25th Nov. 2012	CW	160m to 10m	Two days	CW World Wide	Possibility

We have yet to fully decide on a contests calendar for the following year but should have something ready by the next newsletter. The next GQRP contest is the 'GQRP Valve QRP day' on 18th November that may be interesting. It is not really a contest but *"a celebration of the mystic warmth of glowing filaments"* as stated in SPRAT. Talking of SPRAT, don't forget we are members of the GQRP club and the 'SPRAT' magazine is pinned on the notice board in the club room.

QRP and the Grey Line

Kevin G4CMZ

Quote: *"The grey line is a band around the Earth that separates the daylight from darkness. Radio propagation along the grey line is very efficient. One major reason for this is that the D layer, which absorbs HF signals, disappears rapidly on the sunset side of the grey line, and it has not yet built upon the sunrise side. Ham radio operators and shortwave listeners can optimize long distance communications to various areas of the world by monitoring this area as it moves around the globe."*



My goal was to prove that DX can be worked with a modest station and antenna system. Obviously with this style of attack, the time (UTC) dictates where you can work to a considerable degree.

The results below were achieved with either station +/- 30mins of the grey line.

Date	UTC	QRG	Call	RST out	RST in	Pwr	QTH	Details	QRB(mi)
26/09/12	22.56	14019	KS0X	599	569	5W0	Iowa	90W 4EL	3992
26/09/12	23.46	14020	N4DSP	579	549	5W0	N.Carolina	5W Triband	3817
27/09/12	23.26	14034	NE8J	599	449	2W5	Florida	100W Quad	3712
27/09/12	23.59	14004	8P6DR	599	599	5W0	Babados	100W 5RV	4187
28/09/12	23.21	14022	VE3USP	599	559	5W0	Ontario	100W	3508
03/10/12	18.47	18073	VO1HP	599	559	2W5	St. Johns	Frank	2240
12/10/12	20.56	14033	W0AIH/KV4	599	559	5W0	US Virgin Is	Paul	4133
01/09/12	19.38	10124	ZL3XDJ	339	559	2W5	South Island	Brian	11825

During the winter months I will be experimenting with vertical polarisation rather than horizontal. The grey line map is accessed through <http://dx.qsl.net/propagation/greyline.html> and the SFI information is taken from www.dxsummit.com.

I've managed to work 87 DXCC entities this year with 5W or less to various dipoles just 2 metres above ground level! So it can be done, give it a try this winter you may be amazed.

Happy DX chasing and 73/72

Kev G4CMZ

National Ham Fest - Newark

Dave, G1VAB

Wow! We DID do well on our two-table stand at Newark this year. We had some equipment to sell where we were to take a commission on the sale, the most of the money going to the family of the person whose equipment was being sold. As you probably remember, we had a Kenwood TS-850S and a Yaesu FT-902 for sale. The rigs had only just got into the Pavilion when I was asked the prices. Details passed, and a smile with a handful of cash with no argument as to the price the deal was done.

Should have sold them for a bit more! What a way to start the first day of the Ham Fest! Just as well Bill 2EOPBB, his wife Pat and I had got things set up on the Thursday.



Figure 7 - The DADARS Stand before we sold it all

Richard came and joined the three of us and other members made kind offers of assistance during the day. At the beginning and until lunchtime things were going OK, but then the standing around was getting to the feet and some respite would have been good, however the members seen in the morning had done what they came to do, buy what they wanted, and headed off home. Saturday is always a quieter day and this time there was Martin and Jenny, Chris, and me for the third day. Sales were a lot slower – and less too – and no matter how many people agreed that the next-to-new FT817 was very reasonably priced. It remained unsold at the end of the event.

Thanks to all who helped, and to the members seen at the show. Good to see a nice number of friends there. Oh - the money the Society made? Still counting it....

Dave, G1VAB

For Sale: Is anyone interested in a very nice, hardly used FT817 complete with all the bits. Very reasonably priced – you won't get it cheaper than this! If so, send an email to radio@dadars.org.uk or make a noise in the club room.



SOS Radio Week - 2013

Dave, G1VAB

As some of you may remember, a friend of mine (Dave G1VAC) and I had put on a 24 hour station at the Church during the last weekend of January in 2010, raising money for the Royal National Lifeboat Institution, the UK charity who provides and operates the lifeboat service and provides the equipment and training for the volunteers who go out in all weathers to assist those who fall into difficulty around our shores.

The money we raised that year towards the donation made to the RNLI by the SOS Radio Week organisers was over £500 – for just 24 hours of doing something we enjoy! Dave and I have decided to do a repeat performance in January 2013 and are again to operate GB1LBD (Life Boats, Derby) from the Society's HQ. We'll have sponsorship forms ready soon and will be looking for people to volunteer to take one and pass around their friends, relatives, work colleagues, etc. Those who are paying tax into the UK can 'Gift Aid' their pledge but the form will require your name, full home address and Postal Code as well as a tick in the relevant box.

It is planned to operate on most bands up to and including 70cms but no matter how much we try we won't be able to do anything about making contacts using Morse as neither G1VAC or I have any knowledge let alone skill in using that mode, so if there are members of the Society who would like to come along for a time during that 24 hour period and have a go at making some contacts on the key then you would be welcome! We'll still be operating on the FM and SSB modes so you would be 'augmenting' what we're doing, not replacing either of us.

Our 'marathon session' is to start at 10:00 on Saturday 26th January and the final contact completed by 10:00 on 27th, so we are all finished before the Church service starts up at 10:45.

Please contact me should you require sponsorship forms and when they're available or if you wish you can request a form by e-mailing 'GB1LBD@gmail.com', and please pass one around for others to add their financial support too! Thanks!

Dave, G1VAB

The DADARS Challenge

The challenge is not to do the crossword below but to see if you can write a better one for the next newsletter. Writing a crossword is a lot harder than you may think!

This is my first attempt. The questions seem a bit easy but I did not want to put people off.

	1			2		3			4		5	
	6		7						8			
					9							
10									11	12		13
	14		15					16				
		17										
						18						

Across

- 1 Opposite to a receiver
- 6 Generic description of USB or Com1
- 8 Filter bandwidth for AM
- 9 Keep this down to avoid splatter
- 10 Put your callsign on it at rallies
- 11 Another word for a shack
- 14 OZ, OU, OV 5P and 5Q
- 16 Speed up your Morse
- 17 Noise around 1.960MHz in the 1970's
- 18 Decline

Down

- 1 This used to be the lowest frequency amateur band
- 2 People who talk on the same frequency regularly
- 3 Converts pressure to voltage - try not to spit
- 4 Needed to support your beam
- 5 A more modern term for Wireless
- 7 A slang term for a transmitter
- 12 A gas in air that corrodes your aluminium beam
- 13 Samuel's famous code
- 15 The contest starts at mid day
- 16 You need to twiddle this

The solution will be in the next newsletter. If you are really desperate and cannot answer a question (seems unlikely), then feel free to send an email to radio@dadars.org.uk.

The next newsletter will be issued around January 2013 - see you then.

Chris G4AKE