SURREY RADIO CONTACT CLUB

Founded in 1935

FEBRUARY 2014 – No: 858

CLUB NET	1.905 MHz	Sunday **9:30am**
CLUB NET	145.35 MHz +/- 25kHz	Friday **9.00pm**

CLUB Internet WEB Site: http://www.g3src.org.uk

Hon. Sec. John Kennedy G3MCX
22 Croham Park Avenue
SOUTH CROYDON
Surrey CR2 7HH
020-8688 3322
E-Mail: secretary@g3src.org.uk

MONTHLY MEETINGS 1ST AND 3RD MONDAYS 7.30 FOR 7.45pm

Meetings at Trinity School, Shirley Park, Croydon CR9 7AT

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1st MEETING Monday 3 February. Noise Cancellation with Graham Somerville M3ZGS

2nd MEETING Monday 17 February. Move-it-On and Fix-it Session led by John G8MNY plus discussion on next Club Construction Project

SRCC Committee 2013/14

Chairman & Club Meetings	G4FDN Pat McGuinness	020 8643 0491
Acting Vice-Chairman	G3ENG John Mathews	020 8652 6604
Treasurer, Liaison, Equipment & Recycling	G4DDY Maurice Fagg	020 8669 1480
Secretary, Membership & Communications	G3MCX John Kennedy	020 8688 3322
Contest Co-ordinator, Newsletter Editor & Publicity	G8IYS John Simkins	020 8657 0454
Committee Member - Web Master	G4FYF Steve Jones	020 8406 0919
Committee Member	G4FFY Ray Howells	01732 357474
Committee Member (Co-opted)	M0LEP Rick Hewett	01689 851472

Dear Members & Friends,

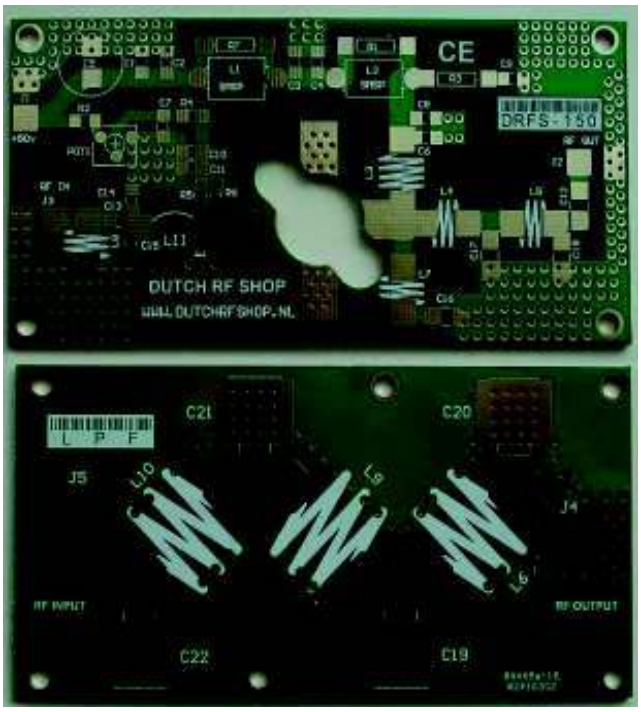
Hello and welcome to the February 2014 issue of the Newsletter, edited by John G8IYS.

Editorial Update

This month we will start with some personal amateur radio items, rather than subjecting readers to my home-flood experiences. Happily, those problems are now almost sorted and I have been able to spend a few days roller-emulsioning the interior of my new shack. I have even found time to drop a temporary feeder in through an opened window (permanent lead-in duct yet to be started) connecting to my 8- ele, 2 metre yagi and thence to my 2m/70cm dual bander, perched on a window sill. The antenna works passably well on 70cm too and I have had one QSO via GB3NS with Frank G3ZMF (just as I forecast last month) to try it out. I tend to monitor NS while I am busy in the shack, so I will be pleased to talk to anyone via that medium (analogue, not digital – I almost added yet, but I know better). All being well, I shall also be active on the Friday night Club Net on 144.350 MHz.

As I mentioned recently, I have also a 70 MHz Transverter project on the stocks – not that it has advanced much since Christmas. The 28/70 MHz Transverter itself is complete and tin-boxed and so is the matching Linear amplifier - hopefully giving 25 watts output, all integrated within the same enclosure. Whenever I get the chance, I ponder how to best mount the boxes within the enclosure and also consider an economical antenna changeover relay system ie not an expensive coax relay, but ensuring enough isolation exists between the tx and rx ports and not requiring a 4m/4 x VF coax patch.

Also, in a relaxed moment, I undertook a search for circuitry for a further Linear Amplifier to take the Output power up to full UK limit on 70 MHz. I discovered: www.dutchrfshop.com . This is an interesting site and well worth a visit. Among several other items, it offered a kit comprising double-sided, plated-through boards (RF and LPF) all passive components, including coil winding wire and a Power MOSFET SD2931-10, giving 150 W output for about 2 W of drive. This was for the princely sum of 59.95 Euro and thus irresistible. Payment via PayPal was easy and delivery was quick. Quality is excellent. Naturally, one has to find a box and a suitable heatsink – which is going to be fairly substantial! The Vcc required is 50 volts – and that is yet another of my started, but completion postponed, projects.



70 MHz 150 Watt Linear Amp and LPF Boards

For the really brave, the site also offers a 144 MHz Linear Amplifier, giving 1 kW output for about 5 W of drive, and employs an MRF6VP11KH device. it is ***only*** 249.95 Euro, or 119.95 Euro without the Power MOSFET. The site also offers Teflon coaxial cable, with characteristic impedances of 25, 50 and 75 ohms. Just the job for your Wilkinson Combiner or Balun. Now onto other items:

NEXT MONTH'S MEETINGS

First Meeting: Monday 3 February

Noise Cancellation with Graham M3ZGS

It has been a while since his last visit, so we are pleased to welcome back Graham Somerville of BHI, who will present some of his Company's latest DSP Noise-Cancellation products. For those members receiving this Newsletter by e-mail, there is a further attachment of the product flyer. Those receiving by snail-mail, will receive a separate printed document.

Second Meeting: Monday 17 February

Move-it-On, Fix-it Session led led by John G8MNY plus discussion on next Club Construction Project

LAST MONTH'S MEETINGS by Hon Sec John G3MCX.

Monday 6th.January 2014. GB3NS by Denis Stanton, G0OLX

Opening remarks by our Chairman Pat McGuinness G4FDN. " Good evening everyone – Happy New Year – We have one visitor tonight from Parsons Green." Pat then introduced Denis - who should be known to most of the twenty-seven in the audience this evening - from talks at previous meetings and also as a member of the SRCC. Before handing over to Denis, Pat did remind him of their first QSO via GB3NS on February 20th.1977 between 1548 and 1552Z when Denis was operating as G8CUX/M while in Ewell.

Denis, the Repeater Keeper, began with the history of of GB3NS. It came on the air around 1976/77, with an aerial that had circular polarisation as an experiment. It worked well in one direction and was tested for nine months. Catronics then gave them a J-Beam. Terry Giles G4CDY built the TX and GB3NS had a very good set-up in Banstead, where a support group was formed, Derek Carrick G7VID built software that would do everything! It had to be switched off since the 433MHz output interfered with car security systems (ie the cars would not start). It was off for three years until, at a CATS meeting, Denis decided to get it going again on the original site in Banstead - using a continuously running 40W TCVR. He was able to keep it there until his Dad died and his Mum got fed up with it. It was then moved in December 2011 to the roof of ASDA until June 2012. The repeater was again moved to a temporary location at G4WYJ's QTH at Tadworth (IO91VH) where it covered London and North Surrey.

The final move was to it's present ridge top site just south west of Caterham near Chaldon

Common on Willey Park Farm (IO91WG) where the antenna could be fixed to the top of a grain silo. A fibreglass cabinet was acquired to fit an available space and new equipment was installed. The new Motorola DR 3000 is a dual mode, analogue and digital device. It is rated at 25 to 40w continuous use and is set to give about 13W output after the Band Pass Duplexer and Circulator. The RX may have a low noise preamp fitted to help hand-held portable use. The Logic is an ID-O-Matic Mk.11 kit which sends a 'K' in morse on carrier drop and is user-friendly. It is a good site and can reach the outskirts of Brighton and junction 21 on the M25 with 20W ERP on UHF.

Digital Mobile Radio (DMR) uses Time Division Multiple Access (TDMA) which allows two radio transmissions to interleave on one 12.5kHz-wide channel. This has the effect of reducing the utilised channel width to 6.25kHz. How this is done? Take this example: two mobiles working through the same DMR repeater have their transmissions sampled in a synchronised manner. Some cell phones use the same technique. The DMR converts the analogue signal from the microphone to a stream of digital bits which are sent in a 30 msec time slot called a TDMA Burst. One slot for each mobile, which lasts 60 msec, is called the TDMA Frame. Getting the timing right is absolutely crucial. The repeater transmitter keeps running all the time that either mobile is active. During the 30 msec time slot, the transmitter has to reach full power in 1.5 msec send data for 27 msec and then power down again in 1.5 msec. If two slots are in use, they can both be voice, both data or one of each. Analogue only transmissions can only take place using the full 12.5kHz channel width. Digital Smart Technologies for Amateur Radio (D-STAR) uses FDMA (Frequency Division Multiple Access) and is not compatible with DMR which uses TDMA.

GB3NS is Analogue and Digital and uses channel DVU54, with operating frequencies: repeater input (mobile transmit) on 430.675MHz, repeater output (mobile receive) on 439.675MHz and CTCSS code D 82.5 Hz. GB7NS will be digital only and it is intended to connect it to an aerial on the same mast. A new station will be analogue only, with 12.5kHz channels.

To get started, a popular DMR portable radio is the Motorola XPR 6550. This comes in both VHF and UHF versions. Hand-portable rigs are available on e-bay - or it is possible to buy Motorola from Denis for around £75-£125 that cover frequencies from 403-480MHz for 70cms. Denis can be contacted at – see GB3NS website (or SRCC membership list).

Denis with mobile in one hand and a circulator in the other.

A sample of suitable DMRs

A DMR base-station and link to internet

While thanking Denis for a most interesting presentation, the SRCC also made a donation towards the upkeep and running costs of the Repeater. This was enhanced by a collection from those present. A good evening was had by all! All photos above are courtesy of Ray G4FFY.

Second Meeting: Monday 20 January

Move-it-On, Fix-it and Informal Chat led by John G8MNY

This was a very well attended, evening with nineteen present including a visitor from Bulgaria: Angel LZ1AHH. We also met one of our new Members for the first time: Bill M6YCR. John G8MNY put a station on the air for testing purposes but we are not sure if he actually worked anything!

The Chairman's Blog by Pat G4FDN

Last meeting on GB3NS: I know our Hon. Sec. has provided a detailed write up about this elsewhere in the newsletter, but I would like to add that the club has quite an active presence on this repeater in both analogue and digital modes. I know a few more members would be on it too if they could get their Baofeng handhelds programmed with the correct frequencies and sub-audible tone, and deviation/BW setting.

I have got in the habit of monitoring GB3NS when at home and had a nice QSO with Andrew G4ADM/M one evening when he was on the M25 on the way back from York. Andrew is also active on the repeater's DMR mode.

At the meeting, I asked Denis G0OLX to add me to the waiting list for one of the Motorola dual mode handhelds, so hopefully it won't be too long before I'm on DMR too.

For operation at Trinity School, Croydon, GB3OK on 439.5125, also with 9MHz down shift, gives better coverage than GB3NS, as it is a lot nearer to Croydon.

So maybe we should get in the habit of monitoring that while we are at the second Fix-It meetings or on the way to/from the meetings?
Recent club visitors: We were pleased to welcome Ryan Sayre M6RSY of Parsons Green, near Fulham, to our GB3NS meeting. Ryan is originally from Portland, Oregon and is active on GB3NS and hopes to get going shortly on HF.

At our second meeting in January we were pleased to welcome Angel Hristov LZ1AHH who is now living locally. Angel is interested in contesting and field day operation and plans to take the UK licence exams as way of improving his English –which I found very good anyway.

The turnout for the second meeting was very good and we had PSK31 on demonstration courtesy of John G8MNY.

L to R: Alan George, John G8MNY, Roger G8HDP and Peter G7PWV

Bill M6YCR with G3MCX, G4XAT and M0LEP in left background

At this meeting I managed to get a picture (above) of Bill Jones M6YCR who joined the club in October. Bill has done well in getting on the air since getting his licence and has been on the club's Top Band net twice with very good signal strength on the second occasion.

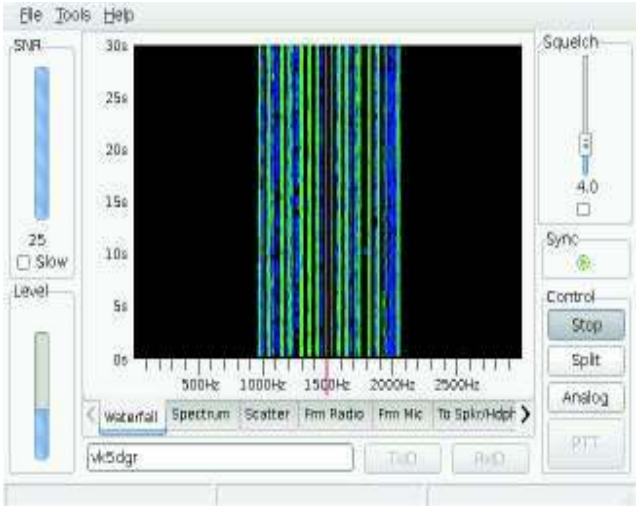
As usual, on second meetings there was a 'Fix-it' going on with Andrew G4ADM working on a crystal controlled 12V DC to 240V AC inverter and Alvin G6DTW working on an ATU with shorting vanes on one of the variable capacitors.

Andrew G4ADM, Roger G8HDP and Alvin G6DTW

Do you want to know the difference between a MFJ-255 antenna analyser and a Sark110 antenna analyser?

Well, I suggest you ask John G3ENG as he has both. Though both are called antenna analysers, the MFJ-255 is really a vector network analyser and so is a more powerful beast altogether being able to measure transfer functions such as filter frequency response and loss through its two-port capability. Though that is not to say that the Sark110 is not impressive in its own right. If you would like to know a little more about each, links/URLs are given below.
http://www.mfjenterprises.com/Product.php?productid=MFJ-225
http://sark110.ea4frb.eu/

New Digital Voice Mode for HF, FreeDV: I became aware of this a few months ago via a mention in QST and the latest edition had a short article about it. I mentioned it to Martin G4FKK on the Top band net that I had got set up to listen on this mode and had heard some activity on 20m on 14.236, and within a few hours he had got set up for transmitting and receiving and we had a short QSO with him transmitting on FreeDV on 1.905MHz and me receiving and transmitting back on 433.55MHz FM. We were both pleasantly surprised that it worked first time, but more work is needed on settings at both ends to maximise the quality. This is what it looks like on a 'waterfall' display:



The basic info on the mode from http://freedv.org/tiki-index.php is: FreeDV is a GUI application for Windows, Linux and MacOS (BSD and Android in development) that allows any SSB radio to be used for low bit rate digital voice.

Speech is compressed down to 1600 bit/s then modulated onto a 1.25 kHz wide 16QPSK signal which is sent to the Mic input of a SSB radio. On receive, the signal is received by the SSB radio, then demodulated and decoded by FreeDV. Communications should be readable down to 2 dB S/N, and long-distance contacts are reported using 1-2 watts power.

FreeDV was built by an international team of Radio Amateurs working together on coding, design, user interface and testing. FreeDV is open source software, released under the GNU Public License version 2.1. The FDMDV modem and Codec 2 Speech codec used in FreeDV are also open source.

If you have already got going on PSK31 or any other digital mode using a PC or laptop sound card interface you are half way there. FreeDV requires in addition a second sound card interface with an analogue headset with mic, or a USB headset with mic. Please see the above link/URL for further information. I'm happy to test with anyone who wants to have a go.

Club Newsletter direct to Kindle e-reader: so far there are just two members taking advantage of this capability, but I can recommend it to anyone who has a Kindle. It is much better than reading on a laptop or PC and saves printing it out. It also means you can have all the newsletters in one place. If you are interested in trying it let me know and I will advise on how it is set up.

Next club construction project: this has been discussed at committee and at the second February meeting we will have an open discussion amongst those interested as to the choice of project. We welcome specific ideas but there is the expectation on those proposing that they would be active in leading the project. The aim is to kick off construction by the second meeting in May. I have a couple of ideas of my own but I'll leave details until next time.

March Surplus Equipment Sale: when you read this the sale will be only a month away so I am repeating my usual appeal urging all members to support this fund raising event by bringing along equipment or components to sell or donate, and also buying some of the items other people have brought along. I can't stress enough that equipment sales in the club and at Kempton Park are the main source of club income. The annual membership subscription is purely a nominal amount and doesn't really cover posted newsletter costs let alone rent of accommodation at Trinity School. So please keep the club fund healthy by supporting this. There are usually some great bargains to be had, so don't miss it.

Next Meeting: That's all from me this month. Hope to see you all on the 3rd February to learn about noise cancellation.

RSGB AFFILIATED SOCIETIES CONTESTS Reminder

Last month, Quin G3WRR provided an article on AFS. I reproduce the event table which he prepared:

CONTEST	DATE/TIME	MODE
80m AFS (CW)	Sun 12 Jan 1400-1800 UTC	CW only
80m AFS (SSB)	Sat 18 Jan 1400-1800 UTC	SSB only
432 MHz AFS	Sun 2 Feb 0900-1300 UTC	Mixed mainly SSB
50 MHz AFS	Sun 19 Oct 0900-1300 UTC	Mixed mainly SSB
Club Calls (160m)	Sat 8 Nov 2000-2300 UTC	SSB only
144 MHz AFS	Sun 7 Dec 1000-1600 UTC	Mixed mainly SSB

The 80m January sessions have now passed (see report from Quin later in this Newsletter), but in February there is one 432 MHz event. It would be good to get at least 4 stations on the air. I am aware of SRCC activity by Jim G4WYJ and myself John G8IYS plus a maybe from Quin G3WRR. I hope that other members will also take time to put their 70cm station on the air to support SRCC - even if only for a couple of hours. The rules are available from the RSGB CC website by clicking on the links from the calendar pages - http://www.rsgbcc.org/cgi-bin/hfreadcal.pl?nosections=y&year=2014 (HF) and http://www.rsgbcc.org//cgi-bin/readcal.pl?year=2014 (VHF).

If you are interested and have any queries, please do contact Quin by e-mail at g.g.collier@btinternet.com or myself at g8iys@btinternet.com. We will be very happy to help with after the event activities such as log preparation and co-ordination of their submission.

Denis Squires G4DAC

We were sorry to learn that Denis had suffered an injury to his hip after a fall. We are pleased that no fracture was found, but scans are planned. Denis monitors the Club Nets and hopes to be at a meeting soon. 73 Denis.

Volunteers needed at Brooklands Museum by Peter G3ZPB.

As some of you may know, I am leading a small team of enthusiasts putting on a display of some of the many radiocommunications items held by Brooklands Museum, near Weybridge.
Brooklands is the site of the world's first purpose-built motor racing circuit and was the birthplace of British motorsport and aviation. It is the home of Concorde and the site of many engineering and technological achievements throughout eight decades of the 20th century. The Museum displays a wide range of Brooklands-related motoring and aviation exhibits ranging from giant racing cars, motorcycles and bicycles to an unparalleled collection of Hawker and Vickers/ BAC-built aircraft, including the Second World War Wellington Bomber, Viking, Varsity, Viscount, Vanguard, VC10, BAC One-Eleven and the only Concorde with public access in South East England.

It is with this background that we are setting up this display of early radiocommunications equipment. They all have an aviation theme and include such iconic items as the T1154 and R1155. We will also have a working amateur radio station as part of the display (currently licensed as M0HNS but I've also applied for GB1BM). Because of the Educational ethos of the Museum, there will also be a "Morse Training Desk" and a short-wave receiver that the public can "play" with.
More details as we build up the display can be found at http://www.brooklandswireless.com.

The display is being housed in a room within the museum complex and ideally should have a "radio-minded" steward on duty at all times. Because the museum is open 7 days a week, 51 weeks of the year, this requires a sizeable band of volunteer stewards. We have already started recruiting. but need more people and so I am asking if there are any SRCC Members who would like to join us. Preferably, you can commit to one (or more) days a week on a regular basis, although support for the occasional weekend "Special Event" will also be welcome. Because the Museum is run by a Charitable Trust, I can't offer you payment for your time or even your travel expenses, but I can offer you enjoyment and self-satisfaction: giving time and skill to the Museum is enjoyable and, hopefully, will give enjoyment and education to all who visit the Museum while helping to preserve and protect the heritage and legacy of this great place
More details can be found at http://www.brooklandsmuseum.com/index.php?/support-us/volunteer. If you would like to join us or have any questions, please contact me by email to peter.burton@orange.net or phone me on 01737 551413 or 07989 557888.

AFS 80m RESULTS by Quin G3WRR

Just a quick update on the 80m AFS contests in January.

In the CW event we got on a full team of 4 stations, with results as follows:

G0SAC	190 QSOs
G3MCX	87 QSOs
G3SRC	246 QSOs
G4FYF	46 QSOs
TOTAL	**569 QSOs**

Based on last year's score, this would have put us about 10 positions higher than last year (26th rather than 36th) but given the way conditions vary from year to year, such comparisons are distinctly suspect!

I came on in the SSB event (again using the G3SRC club call, and again from the QTH of Peter Madagan G3RQZ in Godstone – thanks Peter!) but SSB is a very different story from CW: the QRM is astonishing with about 300 stations trying to fit into a bandwidth of 125 kHz. After spending an hour and twenty minutes tuning around and calling people (for 78 QSOs), I managed to squeeze into a small hole and had a nice run of 109 QSOs in 53 minutes: I then lost the frequency and was only able to make a further 7 in the following 40 minutes – so to my discredit I gave up with an hour to go and 192 QSOs in the log! Moral – try harder to get a run frequency from the start next year…

For masochists of a VHF inclination, the 70cm AFS contest is on Sunday March 2nd from 0900 – 1300 UTC. At least 2 SRCC members told me at a recent meeting that they intend to be on for this….I might even come on myself with my FT847 if I can find an 70cm antenna!

73, Quin G3WRR

Alvin's Mellotron Project: Finished at Last by Alvin G6DTW.

Although not strictly "radio" per se, I thought members would like to see 'what I get up to' in my spare time!

Using six cartridge recorders, each having 4 pairs of stereo tracks, I recorded 48 notes, in pairs, starting with F and F#, making an octave of 12 notes including sharps....
Each pair of notes is on one pair of tracks on a cartridge recorder. This took 7 hours for just one "pass"... cello. Other pure tones included pan pipes ... another 7 hours..

To change "voices" on the 'home made mellotron", one changes cartridges. To go up an octave, one changes tracks - all six simultaneously. Of course, track or voice changes can be accommodated within a cartridge, but then that lessens the octave range - which is 4 octaves.

Any sound may be recorded! One is not limited to 'musical notes'. A piece of music can be reproduced of Volkswagens and Fords with differing engine notes! Musically, there is nothing it cannot do - being only limited to one's imagination. 73. Alvin. Contact at:

alvin g6dtw@gb7cip.#32.gbr.eu
or alvinchallen365@gmail.com

The finished project

A way of keying for the time necessary for loops!

PRIVATE SALE by Kim G6JXA

KENWOOD/TRIO TW4000A 2m/70cm FM XCVR. 5 W/25 W. 5KHz/25KHz. Voice readout, No CTCSS . Working. Low power switch needs cleaning or replacement. Switches on mic need cleaning or replacement. PTT works OK. **£30.**

ICOM PCR1000 PC controlled RX. 100kHz - 1300MHz. AM/CW/FM/LSB/USB/WFM . Filters; 2.8kHz/5kHz/6kHz/12.5kHz/25kHz/ 50kHz/ 230kHz. DSP unit fitted. 12VDC operation. Controlled by Ham Radio Deluxe software from PC only. Should work. **£50** .

AOR AR8000 RX. 100kHz – 1950MHz. Tuning steps: 5Hz/10Hz/ 20Hz/50Hz/100Hz/ 200Hz/ 500Hz/1kHz/2kHz/ 5kHz/6kHz/9kHz/10kHz/ 12.5kHz/20kHz/ 25kHz/30kHz/50kHz/ 100kHz/ 250kHz/500kHz. Modes: AM/CW/FM/LSB/USB/ WFM/Auto . Memories: 1000. 12v DC operation or 4 AA Batteries. Plug top charger. BNC Aerial connector. No Aerial. **£25.**

Hand-held Frequency Counter . 3GHz Limit. BNC Aerial Connector. No Aerial. Plug top Charger. **£10**

All items are “Buyer to collect by appointment only and pay cash only”. Contact Kim G6JXA via any of the following:

g6jxa @ yahoo.co.uk Packet Radio PMS: G6JXA AT GB7CIO
24hr Answer Phone, Text, Telephone: 07812735507.

Home QTH: Morden, Surrey.

FUTURE SRCC MEETINGS

3 Feb	**Noise Cancellation by Graham Somerville M3ZGS of BHI.**
17 Feb	**Fix-It, Move-it-On + Advice Clinic**
3 Mar	**Spring Surplus Equipment Sale**
17 Mar	**Fix-It, Move-it-On + Advice Clinic**
7 Apr	**SRCC Annual General Meeting**
28 Apr	**Fix-It. Move-it-On + Advice Clinic**
12 May	**DIY Solar Hot Water with Les Alden G7VML**
19 May	**Fix-It. Move-it-On + Advice Clinic**
2 Jun	**Understanding the G5RV by Alton Antenna Arrays**
16 Jun	**Fix-It. Move-it-On + Advice Clinic**
7 Jul	**Club Barbecue at QTH G4CCY/ G4DDY**
21 Jul	**Fix-It. Move-it-On + Advice Clinic**
4 Aug	**The Crystal Palace Story 1851 - 1936**
18 Aug	**Fix-It. Move-it-On + Advice Clinic**

Message from Bromley & DARS:

The B&DARS are planning to run a Two Day Foundation Course on SATURDAY 16th FEBRUARY and SUNDAY 10th MARCH. As you can see, this is very soon and if you can pass this to anyone you know who might be interested we will be very grateful.

Also an Intermediate to follow on SATURDAY 6th APRIL, SATURDAY 20th APRIL and SATURDAY 4 MAY.

Contact: See panel "Other Clubs' Meetings".

OTHER CLUBS' MEETINGS

Date	Details
7 Feb	**Crystal Palace R&EC** AGM and Construction Contest.. All Saints Church Parish Rooms, Beulah Hill from 7:30pm. Bob G3OOU 01737 552170 (Meet normally monthly on 1st Friday) http://www.g3oou.co.uk/
10 Feb	**Coulsdon Amateur Transmitting Society** GB3NS by Denis G0OLX. Meetings normally held @ St. Swithun's Church Hall, Grovelands Rd, Purley 8pm 2nd Monday each month. Steve Beal G3WZK. Secretary@ catsradio.org. Tel: 01883 620730.
20 Feb	**Sutton & Cheam RS** Fun Cube Satellite Project by David G0MRF. @ Vice Presidents Lounge, Sutton United Football Club, Gander Green Lane, Sutton – 8pm. Sec: John G0BWV 020-8644 9945
18 Feb	**Bromley & District ARS** Operating Etiquette: A Group Discussion – What it means and what people do. Normal Meetings 7.30 for 8.00 pm @ Victory Social Club, Kechill Gardens, Hayes, Bromley, Kent. Contact: Andy Brooker G4WGZ 01689 878089
14 Feb **28 Feb**	**Wimbledon & District ARS** Antenna Forum with Eric G0KRT. VHFNFD Then and Now with Jim G4WYJ. Contact Jim Noon M6AVV - 020 8337 4940 e-mail jamesanoon@hotmail.co.uk Web site:- http://www.gx3wim.org.uk Normal meetings are usually at 8pm on the 2nd and final Friday of each month at Martin Way Methodist Church, Merton Park (corner of Buckleigh Avenue), SW19 9JZ.

73. John G8IYS. Editor.

SEE also the BHI Flyer.

bhi DSP Noise Cancelling Products

Don't put up with QRM, QRN, hiss, hash, white noise etc..

DSPKR

10 Watt DSP Noise Cancelling Speaker

Features: 10 Watts audio power - up to 7 filter levels - Simple control of DSP functions - Audio input level LED - Filter store function - Sleep mode - Adjustable mounting bracket - 10 to 18Vdc operation - Auxiliary output socket for headphones or loudspeaker - Up to 6 Watts input - Separate volume control - Dims: 135(W) x 130(H) x 85 (D)mm.
PSU12-1A 12V DC plug-in mains power supply
PSU12-1A-EU 12V DC plug-in European mains power supply

NES10-2 MK3

DSP Noise Cancelling Speaker

Features: Amplified DSP noise canceling speaker - 8 filter levels 9-35dB – Rotary filter select control - Mono earphone socket - 2.7W audio- 12-24V DC 500mA - Filter on/off & Power on/off switches. Supplied retail boxed with user manual, rubber feet, fixing screws & fused DC power lead.
1030-VEPL vehicle lead
1030-UKPA 12V DC UK mains adapter

bhi DSP noise cancelling speakers, inline units and internal install modules get rid of noise and interference on all radio bands!

New DESKTOP

10 Watt DSP Noise Cancelling Base Station Speaker

Great Review In Radio User & RadCom

The new bhi 10 watt **DESKTOP** DSP noise cancelling base station speaker cleans up noisy voice signals to leave clear speech and works with most transceivers, receivers and SDR radios.

DESKTOP Features include:
10 Watts audio - Rotary volume and filter level controls - Stereo line input - Speaker level input, headphone socket - Audio/LED indication of filter function - Audio overload - Noise reduction 9 to 35dB - 12V DC to 18V DC power (2.5A peak) - Weight 3.6lb, dims 8"(h) x 6"(d) x 6.3"(w)mm
PSU12-2A – 2A 12V DC mains plug in power supply for **DESKTOP** speaker.

DTNA Noise Away

Base Station DSP extension Speaker
Available until stocks are exhausted superseded by DESKTOP DSP speaker

Features: Basic base station DSP speaker- Easy to control via pushbuttons on the front speaker grille - Comes with removable mounting bracket, a 3.5mm mono 1.2 metre audio plug lead, 2.1mm fused DC power lead and user manual - weight 1.65Kg - Dimensions 200(H) x 150(D) x 160(W)mm - Stylish quality matt black speaker - Excellent audio quality - 4" bass driver and a 1" tweeter unit - 2.5 Watt amplified DSP noise cancelling unit - Wide audio input level 50 - 500mW
1030-UKPA - 12V DC UK mains adapter

NEIM1031 MKII Amplified inline DSP Module

Features: Amplified in-line DSP noise cancelling module – Use with your extension speaker - 8 filter levels 9 to 35dB – 3.5mm headphone socket - Input level & volume controls- Line level input & output option - 3W audio – Requires 12-24V DC 500mA. Supplied with fused DC power lead & 3.5mm mono audio lead & user manual.
1031-108D - Horizontal label,
1031-stand - Perspex mounting stand
1030-UKPA - 12V DC mains power adapter **Rotary1031** – New filter control knob
LSPKR - 20 Watt 4Ohm speaker
SPKR8 - 8 Watt 8 ohm extension speaker

ANEM MKII "Noise Away"
Compact inline DSP module

(Amplified **N**oise **E**limination **M**odule) Compact in-line DSP noise cancelling module - Simple push button operation- Separate on/off and filter select buttons - 8 filter levels 9 to 35dB - Supplied with user manual,1030-FPL fused DC power lead & ALD-001 3.5mm plug lead 1.2 M long audio lead. **1030-UKPA -** 12V DC mains power adapter **LSPKR -** 20 Watt 4 ohm speaker **SPKR8 -** 8 Watt 8 ohm extension speaker

NEDSP1061-KBD
Low-level audio DSP module

Retrofit DSP pcb module – 8 filter levels 9 to 35dB - Single button operation - Supplied with mounting hardware & full fitting instructions – Size only 35mm x 26mm – Will fit many transceivers & receivers. Instructions already available for: Yaesu FT817, FRG-100, FT-847, FT-897, Icom 706 MKII G, Icom 736/738 Kenwood TS50, TS440, Alinco DX-77 & Realistic DX-934 & other radios

NEDSP1062-KBD
Amplified DSP Speaker Module

Amplified DSP noise cancelling module - Fits inside any suitable extension speaker or radio - 8 filter levels 9 to 35dB - Power on/off with bypass – 2.5 Watts output - Fitting instructions for the Kenwood SP31 & Yaesu SP8 extension speakers plus will fit inside other speakers like Yaesu SP2000, - Supplied with full fitting kit, labels and fused DC power lead.

Accessories for bhi DSP Noise Cancelling Products

Extension speakers for use with bhi ANEM MKII or NEIM1031MKII

LSPKR - 4 Ohm 20 Watt

SPKR8 – 8 Ohm 8 Watt

NCH
Budget noise cancelling headphones

NCH2
Proluxe Noise cancelling headphones

Mini Switch

Do you use more than one radio with your bhi DSP product? Save messing around with cables and connect them to one of our switch boxes

1042 Switch Box

Mini Switch - Compact two-way switch box allows connection of two radios to your bhi noise cancelling product. **Features**: 2 x Mono 3.5mm inputs, Output to 1 x 3.5mm mono jack socket or 1 x 3.5mm mono jack plug lead, 3 Watts Maximum. Unused input loaded protect audio outputs. Velcro pads supplied to enable securing of the Mini Switch to your radio equipment. Size

1042 Switch Box - Connect up to 6 pieces of equipment to your bhi Noise Eliminating Speaker, In-line Module or Existing Extension Speaker. **Features:** 3 Inputs loaded at 8 Ohms 3 Un-loaded inputs (for low level signals) Dimensions: L105mm x D75mm x H40mm The 1042 switch box is supplied with 2 off 1.2m 3.5mm mono leads.

To order: ***Tel: 01444 870333 or visit our online shop***

bhi Ltd, 22 Woolven Close, Burgess Hill, RH15 9RR –

www.bhi-ltd.com

Prices include VAT @ 20%, postage and packing not included. EA&O