

WHO IS MR X?

Is it Santa ? Perhaps not, but who is Mr X?



DUNDEE MOVES TO ESSEX !?

For many, the RSGB Annual Callbook is an invaluable reference source. So again we were keen to see the new 2003 edition and check our entry.

We were therefore intrigued to see on p75, the map for 6m repeaters, that GB3DD had moved from Dundee to Essex. Oh well perhaps in 2004...

- And if you want the most up to date info, the RMC website has it all - and in the right place !



TREES vs RADIO . . .

Evergreen trees have more effect on UHF/TV signals than deciduous trees, and experience suggests that coniferous trees are worse than broad-leaved evergreens. In winter, when deciduous trees are bare, they have very little effect compared with summer when the same trees are in full leaf. During wet weather, when covered in moisture, all trees can have an appreciable effect on signals. As trees sway in windy weather the screening effect varies, leading to fluctuations in the quality of reception. So now you know....

ERG COMMUNICATION CHANNELS

Hon. Secretary: Murray Niman G6JYB e-mail: mjniman@iee.org

Internet Website: <http://www.swsystems.co.uk/erg> or <http://www.essexrepeatergroup.org.uk>

Regular news updates appear throughout the year on the ERG website, and on email.

Frequency Bands:-

GB3DA	145.125 MHz Input, 145.725MHz Output Channel R5 (RV58)
GB3ER	434.675MHz Input, 433.075MHz Output Channel RB3 (RU246)
GB3DB	51.270 MHz Input, 50.770 MHz Output, Channel R50-6 (CTCSS Access only)
GB3ZP	1291.225 MHz Input, 1297.225 MHz Output, Channel RM9
GB3CMS	Microwave Beacon 10.36896 GHz (keeper - Clive Ward G1EUC)
CTCSS	All the voice repeaters can be accessed with CTCSS Tone-H, 110.9Hz
G7GAN	ERG Packet /Teletext node - contact Clive Ward G1EUC for more info



NEW GENERATION GB3DA/ER

Pictured below are the fruits of some hard work by Mike G4ZPE. Coming to a repeater near you...

Unveiled at the AGM, the new units will help bring DA and ER into the 21st Century and follow the format pioneered by GB3DB our 6m repeater. Two complete radios are used - one each for transmitter and receiver, housed with interface circuitry in a fan-cooled 19" rack case. This approach solves the problem of having to isolate the Tx and Rx which is usually impossible with many modern integrated designs. It also permits the interesting maintenance option of swapping the radio units in the event of a PA fault.

For more details, see p6



REPEATERS DONT GROW ON TREES . . .

Developments like the costly revamp on GB3DA/ER above, our work on new 6m/23cms systems, and other efforts such as the new Braintree Club 70cms repeater GB3BZ are all based on the efforts of volunteers and donations of time, money and materiel. Repeaters don't run themselves, nor does the RSGB fund them.

Repeater operators have to cover the cost of sites, licenses, insurance and maintenance. They don't have to do this, so they are always glad of your support which makes this possible and worthwhile.

YOUR REPEATERS NEED YOU by Clive G1EUC

As those that joined us at the AGM will recall, we need a flow of ideas to raise funds to keep the repeaters up and running, as well as healthy membership levels.

Over the past few years we have relied heavily on equipment sales, from donated equipment and rallies. Our equipment for sale has almost dried up and the number of rallies has decreased, as have the number of people that attend them. We have tried a good number of ways of increasing membership, but despite our efforts our numbers remain almost static with I am afraid a gradual decline.

We have kept DA, ER and the 10GHz beacon on air almost continuously. We have brought on the new 6m repeater and in the next few months, hope to have the 23cms unit up and running. We have had a few teething problems with the 6-metre box, but that is to be expected with its complexity, new technology and a different generation of radios.

It would be appreciated if you could help. "Your Repeaters Need You", like they never have before.

We need to start initially with more use of the repeaters, to try and get things back to the way they were. Five years ago when the repeaters went of the air for six months or so, we were continually bombarded with when will they be back? When prior to their return we carried out a few tests from our new site, the response was almost euphoric; when we heard all our friends returning to wish us well and to help us with the tests. We went full time on the air a few months later and we had all the old characters back and the everyday and occasional users, with some new voices from Essex and surrounding counties. It was just like it used to be.

Then two things happened! We had the anathema from Basildon join us, he caused problems for quite a while and literally drove a good number of our regular users off the air, in particular DA. I wouldn't turn the radio on in the car if I had my daughter with me. She thinks we are a load of anoraks anyway, but I would not have subjected her to the sort of comments and language that came over the air. It was to say the least embarrassing. Meanwhile the Internet was beginning to subsume a good number of peoples leisure time. Repeater use then began to drop off notably. A third thing that affected usage was the new repeater site which gave diminished coverage in some areas. Unfortunately there is nothing we can do about this. We cannot move up the tower on our new site and we cannot easily re-locate. Sites are becoming increasingly difficult to find and most are cost prohibitive.

So can we somehow reverse the decline of repeater usage?

I think we can!

If more of our existing and ex members start to use the repeaters again, gradually usage will build up with other ex users and new licensees joining them.

I believe that some new licensees are hesitant to use the repeater in the main because of the lack of activity, and also because they don't want to make fools of themselves. To most of us repeater operation and etiquette are second nature, but it can be daunting if you have never used one before. A couple of new licensees I know are still 'mike shy' and still haven't made that initial step, never mind use a repeater. At least on simplex they have a plethora of amateurs to listen to, to see how it's done. Sometimes on the repeaters they could listen all day and not hear a soul.

WINTER SPORTS-2002

This years autumn bowling competition in Oct-2002 was again organised by the very capable John G1JJ who we thank for the photo and results table.

ERG members also support the regular Dengie Club winter quiz. The new shield has a number of ERG wins on it, but this year we split into other teams to provide a bit of variety. It was again an enjoyable occasion - despite the fog which kept some teams away.



Position	Player	1 st Game	2 nd Game	3 rd Game	Total
1	Nigel G6ZVV	187	148	164	499*
2	Tony G0JYI	178	140	135	453
3	Steve with G8GNZ	128	200	112	440
4	Alan with G0JYI	117	127	127	426
5	Denise	109	118	167	394*
6	Dick G0ULU	122	132	109	363
7	Duncan 2E1TOE	147	130	81	358
8	Frank G1HQQ	120	125	93	338
9	Chris G0IPU	113	93	113	319
10	Roy M1RKB	84	109	119	312
11	Emma with G8GNZ	121	99	91	311
12	Geoff G8GNZ	113	114	80	304
13	Liz with JIJ	105	107	86	298
14	Helen M3TNT	100	95	98	293
15	Martin G7SQL	68	96	111	285
16	John G1JJ	99	88	82	283
17	Chrissie G8OIV	80	114	77	271
18	June with JIJ	99	80	82	261
19	Gerry with JIJ	89	71	97	257
20	Jean with GNZ	74	87	90	251
21	Ian with JYI	70	87	92	249
22	Kirsty with G8GNZ	68	79	100	247
23	Lauren with HQQ	63	73	101	237
24	Dick G4GUJ	67	79	89	235
25	Neville with G8GNZ	79	65	84	228
26	Neil with G8GNZ	68	73	73	221
27	Lucy M3SCB	71	68	81	220
28	Beccy M3 BNO	74	82	61	217
29	Carol with HQQ	83	57	62	202
30	Garreth with HQQ	64	70	68	202
31	Carolyne 2E1IHV	55	90	52	197
32	Christine with G8GNZ	51	30	76	177
33	Wezal 2E1WAS	54	68	55	177
34	Kris 2E1IDH	62	80	33	175
35	Jeanette M1CKG	25	69	56	150
36	Mat 2E1GQK	46	52	34	132
37	Matt 2E1GQK	36	40	51	127
38	Jon 2E1NOJ	52	32	33	117*
39	Nat M3VEG	32	34	18	84*

Season's Greetings!

Members News

ERG 2002 AGM & SUBS

The ERG AGM was held on Thursday 17th October 2002 at the usual Danbury Village Hall venue, helped along by free refreshments, a table top sale, and a chance to see the future DA/ER. Make sure come to the next one !

Officers reports were mainly concerned with progress on the new repeaters, whilst RMC Rep Tony GOMBA was present for the AoB Q&A session.

The decline in rallies and rises in running costs prompted a lively debate on subs, which focussed on the latest changes to the license structure. A motion from the floor noted that all classes have easy access to repeaters, but an incentive for youth is worthy. **Consequently for the 2002/3 year subs are:-**

£9 for all, except £5 for SWLs and U-18s

ERG 2002/3 COMMITTEE

Chairman: Mike Wheaton G4ZPE
Hon. Secretary: Murray Niman G6JYB
Hon. Treasurer: Clive Ward G1EUC

Committee Members

Jim Batchelor M1GUS
Alan Radley G0TTM
Keith Wainwright G1NHW
Simon Wilton G7HCD

Bob Cheverall M1DTA co-opted for 6m

ERG is heavily dependent on the dedication of its committee members. So do please attend the next AGM, join up and lend us your skills and spare time.

From BOB CHEVERALL M1DTA in Lightning Land. . .

Hi there ladies and gents

First we'll wish you all a merry Christmas and a happy new year. As you probably heard I'm hoping for a rubber suit for Christmas. I know its shocking words as one does get nervous. I've now got curly hair ha! Ha!

Congratulations to all the new M3's and all the lads that help them. Well... I wish you all good luck in the coming year...

Happy Christmas from the Cheverall family down Twitty Fee

Bob and family



GB3DB

See below and elsewhere for 6m news

Hon. Sec. MURRAY G6JYB . . .

Seasons Greetings !

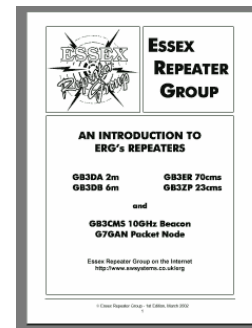
As you can see above and on p6, lightning damage to GB3DB was a disappointing setback (which we hope to correct shortly), but this was only one of a number of issues that we have been hard at work on in the background this year. Clive, myself and Chris GOIPU have also given a fair amount of time to the Chelmsford Club on their M3 foundation license course. Mike G4ZPE is to be congratulated on his donations and efforts on the new DA, which then led us to ask for a repeat for ER (where we have been favourably assisted by W&S). 2003 looks set to be busy on the engineering front. Hopefully readers out there can help us, use the kit more, or help recruit more support, and make all the efforts worthwhile.

Members News

ERG GUIDE

Introduced during 2002 a free guide to ERG and its systems is now available. This long overdue addition was prompted by the need to attract new members and the rise in M3 courses, but will undoubtedly be of interest to many others.

Its eight pages cover ERG history, system specs, frequencies, operating guide and a membership form. The first edition released in March 2002 has proved a great success at retailers, rallies, courses and talks. An updated version is now in production for 2003. Contact the Secretary if you need some copies of what is already a very popular item!



METAL DETECTING BY ALAN GOTTM . . .

One of my other hobbies apart from radio, is metal detecting, this is something I took up just over two years ago. There are two reasons why I took up this pastime, to get out in the fresh air at weekends, and to further my interest in history and archaeology.

I joined the Essex Detecting Society, who meet at the Mill Hall in Rayleigh on the third Monday in the month, then bought a second hand detector through a contact on the Internet. The club has a number of sites for members to use on Sunday's, and I try to get out whenever time and my wife permit (she's very understanding). After the first year of going out on club sites I wasn't really finding anything of great interest, and couldn't really get the hang of the detector, so I did a part exchange on another machine and noticed an immediate improvement.

My present machine is a C-Scope Newforce R1, like a number of modern detectors it has an LCD screen which gives an approximate indication of what's in the ground and it's size, this has greatly reduced the amount of rusty iron I dig up.

The majority of today's metal detectors are what is referred to as "motion" detectors, this means they only give a signal when the detector head is moving, though when you get a signal you can press a "pinpoint" button to make it a "non-motion" detector.

Modern detectors are normally referred to as VLF or Induction Balance and work at frequencies typically between 6-7 kHz. The search head consists of two coils, the larger outer coil being the transmit coil, and the smaller inner one being the receive coil.

The theory being that the transmit coil produces a magnetic field which interacts with the object in the ground, the object then creates a magnetic field of it's own, which is of the opposite polarity to the transmit coil. This is picked up by the receive coil which is passed on to the control box for analysis.

A decent detector will cost from around £200 second hand, up to around £900 or more for something state of the art, the only other tool you need is digging implement.

You can use a detector without permission on a beach or on common land, although it is unwise to go in your local park and start digging holes !

With any farm land you need permission, and should be aware of the treasure laws and the Portable Antiquities Scheme. This is a voluntary nation wide scheme for recording details and locations, for artefacts found by detectorists and other members of the public.

CTCSS & THE GB3DA TRIAL

As a precautionary piece of R&D and to raise awareness, GB3DA was set to run as a continuous CTCSS access system for two weeks in August. This was denoted on air by the ack temporarily changing from a 'K' to a 'C' for CTCSS.

Until mid-2002, RA intentions were that toneburst be phased out so that all repeaters would be CTCSS access on Jan-1 2004. This has provisionally been relaxed for VHF+ so that it only applies to new repeaters (such as GB3BZ in Braintree), but the trend is still clear.

The trial was sanctioned by the RMC, and certainly led to awareness levels rising! Its timing also coincided with one of the summer lifts, where GB3SN was successfully suppressed, whilst leaving our squelch and sensitivity unchanged

Since the trial DA is running normally, but it does leave us a future option that post Jan-2004, advanced use of remote control would enable us to dynamically switch access mode and output power in high lift or other QRM situations

GB3xx WEAR & TEAR

The 2002 year proved a busy one on the maintenance front with the ageing of our Tait technology proving to be the impetus for the newer DA/ER efforts.

Jan: DA-1 Poweramp fails, DA-2 detunes

Jun-1: ER-2 replaces ER-1

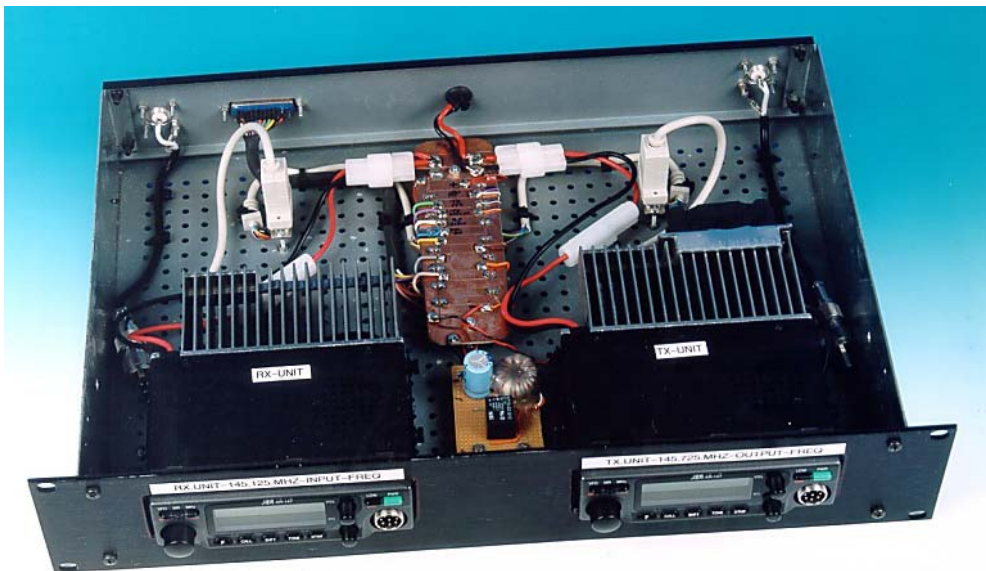
Aug-18: DB damaged by Lightning

- PSU blown, Logic damaged

Oct: ZP mast snapped by gales

NEW TECHNOLOGY

Below is an overhead view of the new DA unit built by Mike G4ZPE. DA-3 as it will become known has two ADI single band AR147 2m radios at its core. The receiver is on the left, transmitter on the right (with a fan on its rear), interface breakout board in the centre, and the fan relay (controlled from the PTT) in lower centre. The new ER uses AR446s similarly.



You can help:

- Start using the repeaters again and help us regain the characters and community spirit.
- Show any new licensees you know how to use the repeater.
- Encourage other amateurs you know to join or re-join the repeater group.
- Come up with ideas for regenerating repeater use and fund raising activities.
- Join the ERG committee as our PRO.

We have in the past year had nets on both repeaters very ably chaired by Bob M1DTA. We have also had two of the committee assisting on the M3 courses, where Murray G6JYB gives an excellent and comprehensive insight into repeaters. Although the syllabus requires knowledge of repeaters, it doesn't require an operational test and the course timetable is so tight, it doesn't allow time for it.

So in summary will you help us to get things back to the way they were? If you have any ideas or would like to help, please contact Murray or myself.

Clive G1EUC

A MESSAGE FROM CHAIRMAN MIKE G4ZPE . .

Well Christmas is now upon us again and another full year nearly gone and a lot of work gone on in the background with the repeaters.

We now have a new generation of repeaters based on the new ADI type dedicated 2 mtrs and 70cms radios. Tony G0MBA our RMC rep for this area has asked us to give him some photo's for the Radcom with a bit of history about the new ones, which we are in the throws of doing at this moment in time. We must be very thankful to Waters and Stanton for their support on this project - special thanks to Mark Francis for the help with the new 2mtr radio's and a spare unit which was accepted with thanks on my part.

The 6mtr radio unit has survived the latest storms and has been running very well but we are at this moment updating the logic side of things as there is a small gremlin in the logic - not a lot to worry about and can be put. After the first storm we had a power supply blow out and had to replace that and build a new spare unit, but the radio's are working okay still.

Work on the 23cms repeater is still on going but we have decided to hold that up till the 6m unit is fully running. But we have been working on the 23cm PA unit which is assembled and is being tested at this moment in time. Murray has also been working on the receiver side of things and is doing great with all those surface mount parts (as well as a quick go at a transverter based alternative).

May I take this opportunity to wish everybody a very happy Christmas and a very healthy new year for 2003. Please support the group where you can as all the officers and committee members do a lot of work behind the scenes, and rarely get any thanks for their hard work. So please when you hear them on the air just say thanks to them - its not too much to ask.

Well best 73's fr nw de Zipy G4ZPE,