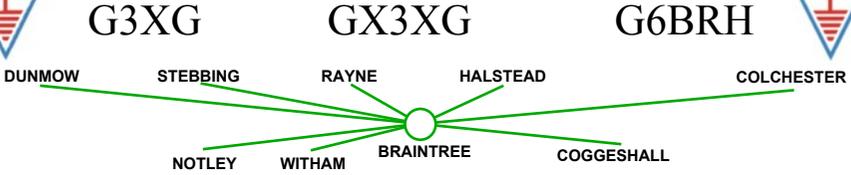




# BARSCOM



## Monthly Communication of the Braintree and District Amateur Radio Society

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# May 2013



The Essex Desert - produced by low rainfall  
and a dearth of amateur radio articles and  
photos in BARSCOM!

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## Club Activities

### Tony GØIAG

#### Meeting -1st April.

As it was a bank holiday, it was nice to see so many members turn up. The "natter night" turned into a mini auction, thanks to Roy G6XCY. As some of you know Roy, who was the founder of the club, is having what he calls "a bit of a clear out. Edwin

and I went to Roy's QTH and collected a lot of useful items.

We displayed most of these at the meeting and as instructed by Roy offered them for sale to the members who were present. It was suggested that we should have an auction so Melvin, our chief auctioneer, was enrolled to do the job. We all decided that certain items should be retained for club use, including a nice rotator, and some items will be put on eBay.

By the end of the evening the total raised for club funds from Roy's clear out so far had reached £129, with eBay sales to come. A nice boost to club funds. Thanks Roy. It was a good evening, and we had fun parting with our money.

It was nice to see Melvin looking so well after his heart attack. And a reminder to all, try not to use a handheld next to his chest, it might set his in-built de-fib' unit into overdrive, use your imagination for possible results.

#### Rally - 7th April.

The Cambridge repeater group rally took place, as usual, at Foxton village hall. To say it was a rally is a bit of an over statement.

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## Club Meetings and Nets

*Club Net - 08.00pm local time  
2 Metres (145.375Mhz)  
70 cms (433.575Mhz)*

### May

- 6 Mills w/e Planning - Natter Night
- 13 Club Net - 2 Metres
- 20 AGM
- 27 Club Net - 70 cms

### June

- 3 Essex Air Ambulance
- 10 Club Net - 2 Mtrs
- 17 Construction Contest
- 24 Club Net - 70 cms

### July

- 1 Rig Clinic
- 8 Club Net - 2Mtrs
- 15 Evening DF Hunt
- 22 Club Net - 70cms
- 29 Club Net - GB3BZ Repeater

## Don't forget!

*G100RSGB 16-7July*

**George Yard Shopping Centre -**  
Your help is needed on both days.

*Please don't leave it to the usual few!*

### August

- 5 Club BBQ
- 12 Club Net - 2Mtrs
- 19 Aerial Clinic
- 26 Club Net - 70cms

### September

- 2 Junk Sale
- 9 Club Net - 2Mtrs
- 16 TBD
- 23 Club Net - 70cms
- 30 Club Net - GB3BZ Repeater

### October

- 7 JOTA Planning

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## Editors Award

*Ian, G8MKN*

Being somewhat ambushed last year, being asked to make an award for contribution to the club over the last year, I have decided to ask for nominations from members as I may not be aware of all that has gone on over the last 12 months or have forgotten a significant contribution.

Please let me have your nominations, with some background information, by May 16 so I can choose and print a certificate.

Thanks.

## Club Activities

### Cont.d

Edwin and Jenny(his xyl) along with Ann and I turned up at about 10.30, and duly paid our £2 per head entrance fee. As we drove towards the car park we noticed one or two cars leaving, we soon found out why. There were only 4 car boot stalls in the field and 7 stalls in the hall.

We met Melvin and Roy as we walked round and they agreed that as a rally it was a joke. The only good thing there was the tea stall which sold excellent bacon rolls. Needless to say our only major purchases were the refreshments.

You may have noticed that I have made no mention of what the stalls had for sale, because there was not much of it, and most of the stalls were asking too much for their goods.

It would have been nice if the entry fee had reflected the poor selection of traders, after all the rally organisers would have known before they opened, how many stalls there were. I heard lots of people complaining as I walked round. Next year, a day at the seaside.

### **Meeting -15th April.**

This evening, we were graced with the presence of our regional RSGB manager, Mark Sanderson, MØIEO, accompanied by the Essex RSGB rep' Norman Crapton, MØEZW.

After introductions, Mark, outlined what was happening within the RSGB after all the past financial problems. Then the subject of logging for the G1ØØRSGB awards came up, after explanation and "clarification", I am sure we were all as mystified as before. There are much simpler systems of on-line logging out there, but as usual the RSGB likes to make things difficult.

Howard asked about changes to the spectrum, and there is a chance of changes to VHF and UHF bands. I brought up the subject of publicity material and the lack of it. Mark said that he had problems getting leaflets and posters from HQ, so we have even less chance. I will take this up with RSGB publicity directly.

Melvin brought up the subject of the QSL bureau and the return of almost empty or empty envelopes. Mark asked Melvin to put his justified complaint in writing, and along with empty returned envelopes, as proof, he would bring the matter up at the convention. Watch his space!

## Wooden Mast

*Dave, G3PEN*

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At 118 m tall, the Gliwice radio tower in Poland is thought to be the tallest existing wooden structure in the world. It is made from impregnated larch, of self-supporting lattice design for strength, based on the 190 m tall example in Muhlack (presumably no longer standing), and was originally built in 1935 to carry radio broadcasting aerials.

Today, it houses a radio history museum and (of course!) mobile phone transmitters. Formerly, such wooden towers regularly punctuated the landscape of what was then Germany - nicknamed the "Silesian



Eiffel Tower", it is the last remaining pre-World War II example. This tower was the subject of the staged attack used to justify the German invasion of Poland in 1939, and the start of WWII.

*\* Edited extract from Good Woodworking, Issue 243, August 2011.*

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## Rally

### 5 May

Dambusters Radio Rally, Thorpe Camp Visitor Centre. Tattershal Thorpe. Nr. Coningsby Lincolnshire LN4 4PE. Open to all types of trader, if you think you might have something of interest to Radio Amateurs and their families/friends you are welcome to trade. All proceeds of the rally go to Thorpe Camp Visitor Centre. Gates open to traders 07:00.

Rally open 10:00. Traders Pitches FREE.

Please bring your own tables and cover. Entry £3.00 per person Including Trade and their companions. (Under 12s Free). Car boot sale. GB617SQN will be active Talk-in S22.

Website: <http://www.qsl.net/gb4tcm/page3.html>

Contact: <http://tcrm@hotmail.co.uk>

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## Calculators - Part 2

*Geoff GIWRH*

Reverse Polish Notation (RPN) aka Postfix Notation

Early Sinclair and HP key layouts were curious in not having an = (equals) key, but instead had an Enter (E) key (illustration).



These types used RPN and to understand this unfortunately we do need to know the meanings of two mathematical terms, operand and operator.

If we write the sum  $2 + 3$ , 2 and 3 are the operands (the things that are having ‘stuff’ done to them) and + is the operator (the thing doing the ‘stuff’. The operator could also be -

x or  $\div$ ). If we tried to calculate a simple sum such as  $7 \times 3$  in everyday standard notation (SN) we would key in  $7 \times 3 =$  and get the answer 21. Using RPN we would key in  $7 \text{ E } 3 \text{ x}$  and the answer too would be given as 21. See that here the operator comes after the operand. “So what?” we might ask. Four keystrokes in each case to come up with the same answer.

RPN, though, comes into its own with more complex calculations, e.g.  $5 + ((1 + 2) \times 4) - 3$  can be keyed in as  $5 \text{ E } 1 \text{ E } 2 + 4 \text{ x } + 3 -$ , giving the answer 14. This avoids having to work out the bits in brackets first and either noting them or storing them in the calculator’s own memory if it has one.

A simulation of an RPN calculator can be found at

[www.hpmuseum.org/simulate/hp35sim/calc.html](http://www.hpmuseum.org/simulate/hp35sim/calc.html) Try it out.

RPN was named by HP in honour of the Polish mathematician Jan Lukasiewicz who devised a logic system called prefix notation in the 1920’s where the operator came before the operand. This was further developed by the Australian Charles L. Hamblin in the late 1950’s to become the postfix or RPN system that I have briefly touched on above.

Another mathematician, Robert S. Barton, from English Electric later claimed that he had developed RPN independently of Hamblin sometime in 1958 – who knows! RPN remains in favour with engineers and accountants as they can see the product of their calculations on display as they progress, and the number of keystrokes is fewer. Learning how to use the basics of RPN can take just a few minutes and it is said that if you learn and use it you won't want to go back to a regular calculator. HP continue to manufacture a top end model that can be switched between modes of operation - the spectacular HP50G at around £130. Using the inflation calculator in reverse, this works out at an almost identical price to the early Sinclairs in 1975. ■

## Positive Feedback

*John, G8DET*

I have got an original Sinclair Calculator in excellent condition – the one I built blew up as I ran it continuously for a couple of hours on large batteries – the chips were not on a heat sink.

Sinclair used to buy up reject chips from a Swindon Computer Chip

**Don't forget!**

***BADARS AGM***

May 20th at 20.00

company – cannot think of their name at present – I was there when everyone walked out on strike. Was it Plessey Semiconductors? Cannot remember – they made the SL Series of Comms chips. I also have a Commador Scientific Calculator somewhere. Small LED display. I loved it – not used it for years.

I remember Frank Bird who I worked with did a huge research project into Scientific Calculators for BT and chose a HP one – got the boss to sign the Requisition for £250 – they then replaced it with a new model which Frank reckoned was dreadful. Frank's was Polish Notation.

With my Assistant Andrew Harries, G8PQR I wrote a multi-page article in RadCom sometime mid 1970s on how to calculate the distance between two QRA Locator Points of a QSO using a Scientific Calculator – the Sinclair did not work with it as it did not have enough storage length – I seem to remember we needed 12 digits!

## Museum Open Day

*Trevor, M5AKA*

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The radio collection at the Sandford Mill Museum in Chelmsford was open to the public on Saturday, April 27 to celebrate the birthday of Marconi who was born on April 25, 1874.

Displays at the museum included, ship's radio cabins 1900s to 1970s and historic collections from Marconi and other Chelmsford industries. There are also special displays on the New Street factory, ship's radio officers and the steam yacht Elettra - Marconi's floating laboratory, plus, plenty of family fun with mechanical Morse code sending and activities with sound, light and electricity.



The Sandford Mill museum is home to an extensive collection of historic radio equipment, including spark transmitters from the late 1890's and a fully equipped Ships Radio Room.



Sandford Mill is run with the help of the Friends of Chelmsford Museums and other ex-industry volunteers. It relies on

The Chelmsford Amateur Radio Society (CARS) operated GX0MWT from the historic 2MT Writtle Marconi hut inside the museum.

the support of several voluntary bodies including Chelmsford Amateur Radio Society, the Radio Officers' Association, the Marconi Veterans Association and the The Susan Trust. Susan is the last wooden Chelmer Barge and is moored at Sandford Mill.

## Contests

### VHF/UHF

#### May

- 4 1400-2200 432MHz Trophy
- 4 1400-2200 10GHz Trophy
- 4-5 1400-1400 432MHz-248GHz
- 7 2000-2230 144MHz UKAC
- 12 0900-1200 70MHz Contest CW
- 14 2000-2230 432MHz UKAC
- 18-19 1400-1400 144MHz May
- 19 1100-1500 144Mhz #1  
Backpackers
- 21 2000-2230 1.3GHz UKAC
- 26 1400-1600 70MHz  
Cumulatives #3
- 28 2000-2230 50MHz UKAC
- 28 2000-2230 SHF UKAC

#### June

- 4 2000-2230 144MHz UKAC
- 9 0900-1300 2nd 144MHz  
Backpackers
- 11 2000-2230 432MHz UKAC
- 15-16 1400-1400 50MHz Trophy  
Contest
- 18 2000-2230 1.3GHz UKAC
- 23 1400-1600 70MHz  
Cumulatives #4
- 23 0900-1200 50MHz Contest CW
- 25 2000-2230 50MHz UKAC
- 25 2000-2230 SHF UKAC

#### July

- 3 1900-2130 144MHz UKAC
- 7-8 1400-1400 VHF NFD

### HF

#### May

- 6 1900-2030 80m CC SSB LOW  
QRP
- 15 1900-2030 80m CC DATA  
LOW QRP
- 23 1900-2030 80m CC CW LOW  
QRP

#### June

- 1-2 1500-1500 NFD Open  
Restricted LowPower
- 3 1900-2030 80m CC DATA  
LOW QRP
- 12 1900-2030 80m CC CW LOW  
QRP
- 20 1900-2030 80m CC SSB LOW  
QRP

#### July

- 1 1900-2030 80m CC CW LOW  
QRP
- 10 1900-2030 80m CC SSB LOW  
QRP
- 18 1900-2030 80m CC DATA  
LOW QRP
- 21 0900-1600 Low Power Contest  
A B C D
- 27-28 1200-1200 IOTA Contest  
Single Operator Unassisted  
Single Operator Assisted Multi  
Operator  
IOTA Points (M4)

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## BADARS Club Library

*Head librarian, Howard  
G6LXK*

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We hold a collection of about 70 books and DVDs that features electronic construction, the history of radio, shortwave listening and other forms of technology to do with radio.

Most hires are 20p per session. (It is hard to collect a weekly rate)

Technical Topics Scrapbook

RSGB Operating Manual - 218pp, all the information that you need to build and run a radio station. 2004

Birth of the Box

The latest acquisitions:

HF Amateur Radio- Ian Poole's book covering most parts of HF operation.

RSGB Technical Compendium - 300 pp, technical articles from Radcom magazine in 1998 & 1999.

RADIO RADIO! - Jonathan Hill's large book all about domestic radio from the start. A signed and numbered book!

Radio Communication Handbook- 700 pp, many aspects of amateur radio discussed in detail, 2005.

The Setmakers - A fascinating book about the beginnings of the Radio & Television service and other technologies.

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Some other recent titles in the collection:

Television Viewers Guide

VHF/UHF Manual.

Transistor Circuit Guidebook.

106 easy projects beyond the Transistor

Radio Listeners Guide

The Battle for Marconi's Story

Popular Electronic Circuits.

Most Secret War

These books and many others are frequently available at club meetings.  
Contact Howard for details.

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