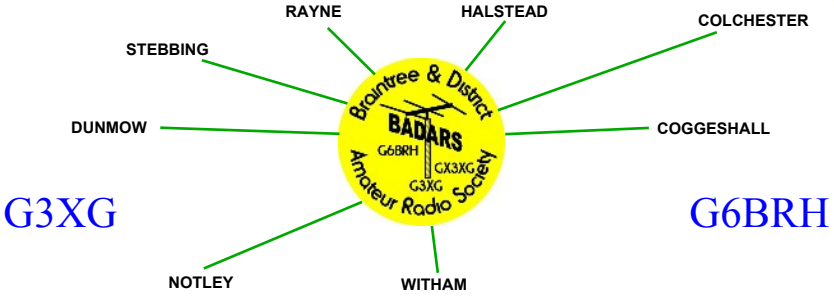




BARSCOM



GX3XG



Monthly Communication of the Braintree and District Amateur Radio Society



December 2015

Members Discuss Construction Kits for Next Year's Contest



November started with planning and discussing ideas for the Construction Contest/Challenge. Neville G8CDG, put various ideas in the discussion pot including building kits. Neville had purchased some kits from the GQRP Club and he thought it might be an idea to encourage members to build them. the idea was debated and members decided to build the 40 m Transmitter to start with then the receiver and the ATU kits. these can be housed and presented to individual requirements.

Contents

Meeting Reports	2
Moving House	5
Circuit Construction	6
BADARS Club Library	7
Club Meetings and Nets	8
Contests	8
Rallies	9


Meeting Reports

Tony, GØIAG



It is planned to have regular club sessions to check progress and help problem solving. Several members ordered the TX kits through Neville. I think this challenge is going to be fun and encourage construction within the club.

November 16th was an evening set aside for the viewing of TXfactor 8, another of those brilliant programmes sponsored by Martin Lynch & Sons Ltd. This episode included an interview with Don

Cont.d P4 

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Field, the Editor of P.W. It took place in his own shack and he chatted about his interests within the hobby.

There was a visit to Icom UK at Herne Bay to talk about their history after 40 years of trading. The Braintree Club was formed in the same year. How many of you have still got Icom radios from that era?

Finally, there was a visit to the BBC News and Current affairs section in the new London HQ. There was

mention of G8BBC taking a transmission from an amateur on the Falkland Islands to inform the British Government of the Argentinean invasion. That amateur was a member of the Braintree club for a while and some of us were privileged enough to meet him. As usual the members enjoyed the film and the evening finished with a further chat about the Construction Contest. Neville is hoping to set up an "ON LINE" forum for the participants.

Christmas Party

Come on down to the club on December 7th for Music and Mayhem, and lots of food and drink.

Just bring yourself & an appetite, and a partner (optional).

A small item would be appreciated as a prize in our tombola.

When Pat and I chose this QTH in Norwich, one aspect that appealed to me was that the garden had in it a quite large oak tree - about 60 feet high and 50 feet wide (at a guess) - and as it was more or less in a corner of the garden, it didn't take up too much room. Of course, my mind was turning to "aerial supports". Sad to say, as yet my garden is still minus any aerial for any band - but perhaps soon I will do something about it.

down thick and fast. So far, Pat and I have filled 2 builder's bags - the sort that are about 1 metre cube - with fallen leaves, well pressed down, which totally obliterated the lawn, and made walking on the paths quite dangerous. As the tree is at the south end of the garden, and recently most wind has been from the south, the leaves have gone everywhere in our property, lying in drifts against the house and garden walls. I estimate that only about a third of the leaves have come off the tree so far, which means a lot of work still to come. Still, I will have a lot of leaf mulch for use in the veg garden next year!

Thinking Of Moving House?

Dave, G3PEN

However, I have a few words of warning to others who may feel that such a tree is a "must have" for amateur radio purposes. It is now Autumn - and the leaves are coming

So - my warning is "be careful - better choose a QTH without big trees and put up a mast instead, if you don't want a lot of extra work every Autumn".

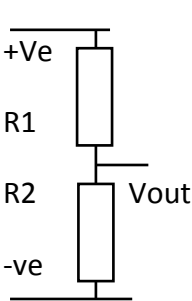
Club Equipment

You can borrow the club's Aerial Analyser for only £1/day and the Morse Tutor (Less Battery) for 50p/2-week session.

Ask one of the Committee for information

Anyone contemplating some circuit construction may be put off by some early failures that are due to missing out on some design considerations.

For example take a simple potential divider circuit to provide some bias or reference voltage. Choosing too



low a value for the resistors may cause one or both of them to overheat if they cannot dissipate enough power. The

minimum values for some common voltages are shown in the table. This assumes

there is no appreciable current drawn from the output port. So, for an input PD of 18 V and a required output of 6V, the minimum resistance values using 1/4W components are: R1 - 620 Ohms and R2 - 150 Ohms. However this would only give an output of 3.5V and draw over 23mA.

Circuit Construction Tips

Ian, G8MKN

To reduce the drain, higher values of resistances should be used but then consideration must be given to any load, and changes to the stability of the voltage if the load

Resistor Dissipation (W)

	0.125	0.25	0.333	0.5	1	2	
Voltage Difference	3	75	39	30	20	9.1	4.7
	6	300	150	110	75	39	20
	9	680	330	270	180	82	43
	12	1.2E+3	620	470	300	150	75
	15	2.0E+3	910	680	470	240	120
	18	2.7E+3	1.3E+3	1.0E+3	680	330	180
	24	4.7E+3	2.4E+3	1.8E+3	1.2E+3	620	300
	50	2.2E+4	1.1E+4	8.2E+3	5.1E+3	2.7E+3	1.3E+3
	100	8.2E+4	4.3E+4	3.3E+4	2.2E+4	1.1E+4	5.1E+3
	250	5.1E+5	2.7E+5	2.0E+5	1.3E+5	6.8E+4	3.3E+4

The values given have been rounded up to the next preferred value based on the E24 series.

current varies. Higher resistance values also reduces the current in the event of an output short circuit and a value of 1k3 would limit the power in R1 to under ¼ W (just).

With R1 - 1k5 and R2 - 750 the minimum values are exceeded, so the resistors will not burn out and the no-load output voltage is 6V. If a current is drawn from the output the voltage will increase, or decrease, by 500 mV for every milliamp drawn.

If this voltage is used to set an offset in an amplifier, any voltage changes will be superimposed on the input; a capacitor can be fitted between the output & earth (often the supply rail, too) to reduce this. The reactance of this capacitor should be at most 1/10th that of the divider circuit at the lowest frequency of interest. So, for an audio amp, this may be around 50 Hz, giving a minimum capacitance of 64 µF.

Library Titles

Loans are charged at 20p for each period between meetings. Contact the Howard, our librarian if you would like a specific book brought to the next club meeting.

This selection is just a taster of what is available:

Title	Year	Author
AFQR 2006	2006	Air Britain
Shortwave Radio Listener's Handbook	1987	Arthur Miller
World Radio TV Handbook	1997	WRTH
Digital Photography & Computing for the older generation	2003	Jim Gatenby
Powerpoint user's guide	1994	Microsoft
Amateur Radio Techniques	1991	Pat Hawker G3VA
Elimination of Electrical Noise	2010	Don Pinnock G3HVA
HF Amateur Radio	2001	Ian Poole
Intermediate Licence book	2011	RSGB
Radio Communication Handbook	2005	RSGB
Radio Frequency Interference	1989	ARRL
RSGB Technical Compendium	1999	RSGB
Technical topics scrapbook & CD	2008	Pat Hawker G3VA

Club Meetings and Nets

*Club Net - 08.00 pm local time
2 Meters (S15) (145.375 MHz)*

December

- 7 Christmas party with food and entertainment
- 14 Club Net
- 21 Christmas natter night
- 28 Club Net

2016

January

- 4 Natter night/TX Factor - 9
- 11 Club Net
- 18 PAT testing for the clubs equipment.
- 25 Club Net

February

- 1 Talk on Astronomy by Mike Adcock G8DJJO
- 8 Club Net
- 15 Construction evening
- 22 Club Net

29 Club Net

March

- 7 Rig clinic, by Dave GØDEC
- 14 Club Net
- 21 Construction evening
- 28 Club Net

April

- 4 TBA
- 11 Club Net
- 18 TBA
- 25 Club Net

May

- 2 Natter night. Mills weekend update.
- 9 Club Net
- 16 AGM
- 23 Club Net
- 30 Club Net

Contests

HF

No contests scheduled

VHF

Dec.

- 6 1000-1600 144MHz AFS Super League
- 26-29 1400-1600 50/70/144/432MHz Christmas Cumulatives Contest

Rallies

5 DECEMBER
SOUTH LANCS WINTER RALLY
Jason, 01942 735 828.

6 DECEMBER
BISHOP AUCKLAND RADIO
AMATEURS CLUB RALLY –
John, G4LRG, 01388 606 396.

2016

17 JANUARY
RED ROSE WINTER RALLY,
John 07840 389 427.
[www.wmrc.org.uk]

7 FEBRUARY
31st CANVEY RADIO &
ELECTRONICS RALLY
The Paddocks', Long Road, Canvey
Island, Essex SS8 0JA (southern end
of A130).
The venue has disabled facilities, is
served by public transport and also
has free car parking. Doors open at
10.30am. There will be radio and
electronic component exhibitors,
special interest groups and an RSGB
bookstall. Details from Vic Rogers,
G6BHE on 07957 461694, email
Nvr1945@btinternet.com.
[www.southessex-ars.co.uk].

18 FEBRUARY
BALLYMENA ARC WINTER
RADIO RALLY
Hugh Kernohan, GIØJEV
02825 871 481 or by email to
HKernohan@aol.com.

14 FEBRUARY
RADIOACTIVE FAIR
Roger, MØROJ on 07747 618131 or
by email to
info@radioactivefair.co.uk.
[www.radioactivefair.co.uk]

14 FEBRUARY
HARWELL RADIO AND
ELECTRONICS RALLY
Ann, G8NVI 01235 816379 or email
ann.stevens@btinternet.com.
[www.g3pia.org.uk]

28 FEBRUARY
BRATS RAINHAM RADIO
RALLY
Rainham School for Girls, Derwent
way, Rainham, Gillingham, Kent,
ME8 0BX.
Doors open at 9.30/10am and there
will be a talk-in station. There will
be trade stands, special interest
groups and catering on site. More
details from Trevor on 07717 678
795 or by email to Trev@wig1.co.uk.
[www.brats-qth.org].

Braintree and District Amateur Radio Society

The club meets every 1st and 3rd Monday of the month at Braintree Hockey Club, Church Street, Bocking. Doors open at 7.30 pm, meetings run from 8 pm to 10 pm.

Membership is £16 annually; Senior members (State Retirement age) and Junior members, under 18, pay £10. A door fee of £1 is also payable at each meeting by members and visitors.

BARSCOM is sent to members by e-mail on the first of the month; paper copies are available at the first meeting of the month (plus postage if appropriate). The usual

deadline for copy is the 28th of each month. Members may sell or exchange equipment etc. before the start of each meeting, during the tea/coffee break and may advertise in BARSCOM free of charge.

Some members have had problems with UHF and BZ access, and as a result the Club Net will now operate on 2 metres only. This should make it easier for all members to remember the frequency, and for non-members to find the net. The net will use V30 (S15) 145.375 MHz, starting 20.00 hrs local time on the 2nd, 4th, and 5th Mondays of each month.

The deadline for submissions for the next edition is 25th of the month. Items will be published in the first available edition subject to space availability.

For more information and pictures of events and projects see our Web Site at www.badars.co.uk

Please contact our Chairman for details about commercial adverts.

BARSCOM Editor (Ian, G8MKN)) © BADARS 2015 - E. & O.E.

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Acom 1000, 160-6m 1kW Amplifier. Easy to operate with LCD message display. Acom's best seller. £1999.95



Acom 1010, 160m-10m 700W HF Amplifier using 4CX800A (6U74E) tetrode. £1289.95

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