



Chelmsford Amateur Radio Society

Established 1936

Affiliated to the RSGB
President: Harry Heap G5HF
Secretary: Martyn Medcalf M3VAM

Club Call Sign: G0MWT

Chairman: Chris Chapman G0IPU

Treasurer: Brian Thwaites G3CVI

Newsletter No 466

Web Address: www.g0mwt.org.uk

December 2004

This Month's Meeting The CARS Christmas Social Evening Tuesday December 7th. 7-30pm at the MASC

As we have explained, this year instead of a formal dinner we are having an informal social evening with pick and choose food. **This function is an admission by ticket only occasion!** If you have booked a place and have not yet received acknowledgement contact John G8DET **either** by email:- john.bowen@btopenworld.com or 01245 224677. If you have booked and forgotten to bring your ticket, all is not lost, as we have a master list! If you still haven't booked a place and would like to come, get in contact with John, ASAP, as he may be able to squeeze you in!

The December meeting is a ticket only occasion.

The Officers and Committee of CARS wish all our Members a Happy Christmas and Prosperous New Year

-----Subscriptions Are Now Due £10-----

If you haven't paid up see Brian at the next meeting or send it to him at 118 Baddow Hall Crescent, Gt. Baddow CHELMSFORD CM2 7BU. Tel: 01245 471919 Unless we receive your sub by the 25th. December we will not send you the January Newsletter and you wouldn't want to miss that, would you?

Dates for Your Diary

Dec 7 CARS Social Evening. Entrance by ticket only. 7-30 pm MASC
Dec 15 CARS Committee Mtg. 7-30 pm Danbury Village Hall.

The Club Net Controllers

December Chris G0IPU

January Colin G0TRM

February Geoff G3EDM

A Letter to the Editor,

Dear Sir,

Would you please convey my thanks to those Members who sent good wishes to me after my recent spell in hospital. Thanks also to Vice Chairman John, G8DET for producing such a fine card at the last meeting for Members to sign. I am progressing well and hope to make it to the December gathering.

I obviously got my timing wrong as I missed Harry's talk, which I am told, was one of the best meetings of the year. Not all is lost though, as I understand it John did a fine job with the sound equipment and made a recording of the proceedings. I look forward to hearing a copy of the tape in due course.

Thanks and best regards to you all. **From Colin G0TRM**

***Because it's Christmas we are giving you three sheets
for the price of two!***

CARS meets at 7-30 pm on the first Tuesday of the month at the MASC, Beehive Lane, Chelmsford.

For details contact our Secretary: Martyn M3VAM on 01245-469008.

Club Nets: Tuesdays 8-30pm: (2nd) 145.375 : (3rd) 1.947 : (4th) 1.947 : (5th) 145.375. All +/- QRM.

Newsletter Editor: Geoff G7KLV 01245-473822 or email: geoff@g7klv.free-online.co.uk

Assistant Editor: Colin G0TRM 01245-223835 or email: colinpage@ukgateway.net

Please advise changes of address to Geoff G7KLV.

Last Month's Meeting Radio Amateurs in WWII by Harry G5HF

Chris, G0IPU our new Chairman opened the evening by commenting on the absence of Colin, G0TRM. A Card was circulated wishing him well with his pending hospital trip - which must have done the job because he came home 6 days later and is recovering well.

Harry started his talk by saying that 'the day War broke out', Ferranti at Hollinwood, near Manchester informed him that they had registered him as a Chemical Engineer and as such was a "Reserved Occupation" and therefore exempt from active Military duty. They were encouraged to join the Air Raid Warden, Civil Defence or similar organisations.

He said that he wrote to the Manchester Police offering his radio services, which resulted in a letter inviting him to an interview with the Chief Constable of Greater Manchester. He graphically described how he was interviewed as a young man in a huge room by someone as senior as a Chief Constable - this resulted in him being recruited as a Voluntary Interceptor (VI).

He told the Chief Constable that when War broke out the Post Office removed his valves so he could not listen to anything. This was noted. When he came back to his digs a few days later, his landlady said "The Police have delivered a package for you". He had been given a brand new Hallicrafters Receiver, far better than his own rig. This had been arranged by G6OM.

2 to 8 MHz was the band that he had to monitor, more particularly 5-7 Mhz - all CW - all in groups of 5 letters. He had to copy this down, complete with any Q Codes used and send it to Post Office Box 25, Barnet, Herts.

To answer a question later he said that the German wireless procedure was very correct - he never heard any German language sent, which would have of course "given the source away". He could soon determine the sender by the tone of the CW signal. Poor power supply resulted in a "chirp" while a range of other notes were identified and classified by Lord Sandhurst.

He did this for 3 1/2 years and then one day it stopped; no explanation but a few months later a simple letter turned up thanking him for all his efforts signed by a Mr Herbert Creedy. It was thought to be someone in the Government. To this day no one knows who he was or who instigated it.

There were about 1,200 VIs, mainly Volunteers but a number were recruited full time as the War progressed & were issued with Royal Signal uniforms. It was thought to be the largest Amateur Operation in the world listening to foreign signals.

Harry said that generally most spies were known and 30 to 40 were executed. Many criminals were told that it would be better to "assist" the War effort from England rather than death - with such an offer, many accepted!. Enemy agents who were

persuaded to work for us were referred to as being "turned".

Garbo was a Spaniard who operated for the Germans out of Portugal using the alias of Mr Smith-Jones. He fed back to the Germans information he obtained from the local library!. Having never been to England he got the money system wrong quoting 10 pennies to the Shilling (12) and 10 Shillings to the Pound (20).

After 9 months the British approached him and told him "that his cover would soon be blown - why not come to England and work for us", which he did together with his family. He was supplied with a good transmitter and aerial and fed the Germans with a lot of good information and when it suited the Intelligence Service, false information. This was mainly prior to D-Day when he said that the real invasion would be Norway & Calais with a diversion at Normandy. He even signalled to Germany the night in June of the D-Day Invasion that a diversionary attack was coming to Normandy!. After the War he faked his death and lived in South America until he died in the mid-1970s.

Harry paid tribute to the courage of many of the German spies. Imagine rowing ashore from a submarine in the middle of the night with no light, rough seas and landing on a foreign shore carrying a radio transmitter, code books etc.

The German transmitter was typically a single-valve, crystal controlled, 2 Watts when battery driven but increased to 5 Watts if a mains source was used. To compensate for the low power they were encouraged to put up a 30 metre aerial. Again, think of the risk of installing this at night - every move could result in your ultimate death.

For some 45 years no one talked about what he or she had done during the War as they had all signed the Official Secrets Act. In 1990 a book was published called "British Intelligence in W.W.II" and Volume 4 brought the whole story into the open.

It stated that secret listening was proposed in 1928 when spies and Embassies started to use Wireless Telegraphy instead of secret inks, which were being intercepted by the Post Office. Harry demonstrated using lemon juice how to write a secret message; when dried it could not be seen but when heated became visible.

He also found out that he was controlled from a cell in Wormwood Scrubs Prison!. Many Amateur names were mentioned including Pat Hawker, G3VA (who still writes for RadCom) and the late Louis Varney, G5RV (founding CARS Member). Louis even got his Amateur licence back during the War & Harry thinks that this may have been because he was a "contact man" with overseas agents.

White Propaganda was the phrase given to German Propaganda, typically Lord Haw Haw with "Germany Calling". This was in the Medium Wave Band to enable British civilians to listen in.

Prime Minister Winston Churchill banned Dirty Propaganda as he thought it would be seen by the free World as "not playing fair".

England bought from RCA of America a 500KWatt Transmitter and shipped it to England on

an Aircraft Carrier. Unfortunately the ship carrying the Aerial masts was sunk by a U-Boat. It was installed in a concrete bunker in the Ashdown Forest & 4 huge aerals built to project signals to France & Germany. It was code-named "Aspidistra" after the Gracie Field's song of a similar name. Harold Robins was the Project Engineer in its inception and he also shut it down in 1982.

This was used for Black Propaganda. To do this, typically a one-hour of good music (jazz) was played followed by 2 minutes of propaganda. This may have been a critique of a speech by Hitler or misinformation of how a battle was going. On one occasion they broadcast a "congratulations to a U-Boat Commander on the birth of a new baby to his Wife, both were doing well" & they gave its birth weight. Problem was that they knew he had been at sea for over 2 years and soon afterwards the commander surrendered his U-boat.

It was noticed that for a few years before W.W II, German Amateurs signed off a QSO with the CW for "55". It was thought that this was to hide the fact that they might not have liked using "HH" for the Hitler salutation and could pretend that "55" was a mistake. This is still done on some occasions today.

As a final question, Harry was asked "if the Germans had a similar organisation to the English VIs", he thought so. Were they issued with E52 (Köln) Receivers?

Perhaps our CARS Members in Germany would like to write an article to answer these questions.

Write-up by John G8DET.

A Book Review by Dick G4DJC.

I have recently been reading a book by Roger Western G3SXW called "Up Two" -The Adventures of a DXpeditioner - in which Roger describes his various DXpeditions and Contest operating in various countries around the world. It is very well written and the readers can easily imagine themselves as being along with Roger from his very descriptive writing.

I read the book on a beach in EA6 while on holiday there, which certainly added to the already DXing atmosphere created by his style. In fact, after reading the book, instead of looking up at hotel roofs (as I had been doing) to see any signs of aerals, I kept looking up to guess how MANY aerals could be installed there! You have to read the book to see what I mean. This book should appeal to anyone who works DX or aspires to go on a DXpedition, as it shows how much work goes into planning and operating a successful operation as well as having to be a diplomat.

The book is published by Idiom Press. (Isbn 0-9617577-3-6) and is available from them or from Roger himself. His address is 7 Field Close, CHESSINGTON KT9 2QD . Tel: 0181 397 3319.

**Don't forget to pay your Subs.
Price held at £10!**

Contest Group Does Well

Before he moved up north, Chris M5CSM joined Steve Cocks G4ZUL and entered the RSGB May 144 Contest. They operated from a site near Hanningfield Reservoir. From experience gained in the previous September contest they changed rigs using a 706 Mk IIG. They had good fun on a really hot day with some nice DX. They came third in the Six Hour Section with 166 QSO's but they pulled off a first with distance, 786 working DF0HF! Well done!

RSGB Affiliated Societys Team Contests 2005

Steve Cocks G4ZUL, our newly appointed Contests Manager wishes to raise support for a Club entry to this competition and has supplied us with the following details:

Dates: CW Event Sunday 09 January 2005

SSB Event Saturday 15 January 2005

Time: 1400 - 1800 UTC

Frequencies: CW: 3510 - 3590kHz

SSB: 3600 - 3750kHz

Exchange: RST plus serial number.

Eligible Entrants

- a) Club affiliated to RSGB (CARS OK)
- b) Each operator to be Club Member
- c) Stations representing the Club must be within 50 miles of MASC.

Teams

Teams can consist of up to 5 stations for CW and 3 for SSB. Number of Teams entered by Club is unlimited

Contacts

3570 to 3590kHz reserved for slower speed Morse operators.

Scoring

10 points per contact.

The above is a brief synopsis of the contest rules. Further information can be obtained from the RSGB website under contests.

Steve is a committed contester and would like your support in forming teams for both events, the more the better as far as he is concerned!

He is particularly anxious to recruit the newly licensed Members to participate, so why not have a go! There are trophies to be won!

You can contact Steve on 01268- 546202

New Foundation Course

Bookings are now being taken for the next Foundation course which starts on Thursday evening 20th January at Danbury Village Hall. If you have any friends or work colleagues who are interested in getting started in Amateur Radio tell them to book a place ASAP as numbers are limited.

For further information contact the CARS Training Manager Clive Ward M0SIX, Tel: 01245-224577 Mob: 07860-418835 Email: training2005@g0mwt.org.uk

New RSGB Regional Manager

You will have seen in RadCom that Phillip Brooks G4NZQ was standing as RSGB Regional Manager for Region 12. It seems some of the information published in RadCom was incorrect as the printers put in the wrong "Personal Statement" for Phillip.

The previous Regional Manager Malcolm G3XVV decided to retire this year having given many years of outstanding service to the Society, he'll be greatly missed.

Region 12 embraces a large area comprising Cambridgeshire, Norfolk, Suffolk, Essex and Kent so Phillip is going to be doing a lot of travelling in his new role. Phillip was previously Deputy Regional Manager with responsibility for Norfolk and Suffolk and I'm sure from his previous record that he will do a first class job in his new post.

He will formally be taking up the position of RSGB Regional Manager next month and will be attending the CARS Christmas Social Evening on Tuesday 7th December so Members will have an opportunity to talk to him then.

Phillip can be contacted on Tel: 01603 250639 or email: phillip.brooks@btinternet.com

Colchester Inter-Club Christmas Convention

Thursday 16 Dec 7:30pm Meeting in the Abbeygate Suite, Colchester Institute Sheepen Road, All amateurs are welcome to attend this Christmas get together. Catering this year will be "Pot Luck" so if you are attending bring some food and try and make it original or we might just end up with 2,000 mince pies.

We will be providing drinks and there is a raffle and quiz.

If you would like to go, get in touch with: James McGinty M0ZZO Tel: 01255 242748 or Email: james@mcginty.net

G5RV Logbook Saved on E-Bay

The final log book of one of the UK's best-known radio amateurs has been saved for posterity. The late Louis Varney, G5RV, was one of the Founder Members of the Chelmsford Amateur Radio Society in 1936, so when eagle-eyed Chelmsford Club Member Duncan, M0KGK, spotted that G5RV's last ever logbook was being auctioned on e-bay, the Club decided to buy it, with Duncan doing the necessary.

The logbook shows that G5RV's final QSOs, on 11 January 2000, were with G0WGP and Chelmsford Club President Harry Heap, G5HF, appropriately enough on page 73 of the logbook.

The log book has been scanned and key pages from it have been put on the CARS CD-ROM. Free copies of the CD will be available to Members at the December Social Evening.

Field Day 2004 Report from David Worboys M3CCM/KG4ZLB

So, Field Day! For those among you that don't know what FD is all about, it is basically a once a year test of emergency preparedness which takes the form of a casual contest under less than ideal operating conditions. Some people go camping and run from portable power. We ran ours from our club headquarters, the American Red Cross building in Naples, Florida.

The event began on Friday night, June 25th with the setting up of the station. This year the club decided to run 6m and 10m SSB, and 15, 20m and 40m SSB and CW so Friday night was spent erecting the temporary antennas to complement the main club tower plus setting up and networking the computers for logging purposes.

Come Saturday and 6m's was wide open so I spent the first few hours working SSB and racking up points. The Butternut antenna that we had set up was not behaving itself on 40m phone, but 10m was good and 20 was very active as well. A few of the people that had help set up started to drift away and by 10.00pm and by midnight three of us remained working 20, 40 and 10 metres.

The club provided pizza and drinks to keep us going and a steady stream of contacts were made. The operating procedure for this contest is to make the contact and exchange call signs, ARRL section and class identifiers and then move on to the next one. The logging program identified if we were just about to log a dupe so rather than call out CQ, it made sense to listen first, log the call and see it if was a new one before calling back. This was even more imperative as the evening wore on as less and less new stations were on air.

The points system works as 1 point for a phone QSO, 2 for a CW contact and more points for DX etc. On top of that you are trying to work all of the ARRL sections (we were in SFL –as in "South Florida") At that point, multipliers kick in but as its not a proper contest, it really doesn't matter that much. All clubs and participants submit their papers to the ARRL and the top scores are printed in QST (the ARRL version of Radcom).

By 3.00am, contacts were drying up and 6m was closed. We also had a problem that the CW on 20m was interfering with the 20m SSB so it was getting a bit boring. Then the great cockroach safari began! I felt something on my foot and looked down and this huge great roach was sitting on my toes. Now I do not like roaches one bit and this thing was fast. So the two of us that were there chased it down and dispatched it with a size 10 – marvellous fun!

At about 6.00am, a couple of members turned up with very welcome McDonalds coffee and breakfast and as the day progressed more members arrived to help the team dismantle the stations at 17.00z, the end of the contest.

Our final tally was 1136 OSOs broken down as follows: 40 cw 40, 20 cw 33, 15 cw 12, 40 ph 87 20 ph 438, 15 ph 267, 10 ph 191, 6 ph 68

Not too shabby as there were only two of us there for most of the night.

Would I do it again...? Sure, looking forward to next year but a few requisites needed, namely my own headphones and plenty of coffee!

More Contest Success for Jim 2E1GUA

Jim 2E1GUA has won two Certificates for being the highest placed Intermediate Station in last year's 50 MHz and 432 MHz contests.

He finished in the 8th position overall in the 50 MHz contest with 66348 points and 9th in the 32MHz Low Power contest with 2960 points.

Very well done, that man!

Essex Morse Practice by Alex M3HSK

Should anyone want to get together (either off or on-air) and practice their Morse I'd be morse-than-happy (ha!) to start a group of Morse enthusiasts who meet to learn/practice. If anyone is interested in a) getting together to practice b) helping out then I'd be more than happy to start something off. We could :- 1. get a beginners group running, 2. progress to intermediate (7 - 14wpm) 3. start an Essex CW net off on VHF/HF as seen fit.

I'm more than happy to start things off with interested parties if we can get more than say 5 persons wanting to meet regularly which would make it worth while hiring a room for a night to practice together (n.e.London/Essex area).

My qualifications are non-existent in Morse tutelage, but I can send and receive at about 15wpm, and have teaching qualifications in other fields.

Anyone interested should email reply with statement of interest to:
morse.code@bouncylandings.com

This could be the beginning of a Morse code revival group - enter stage left: brass band!

If anyone qualified/more qualified than I am wants to either take over or help out, why not come along too?

Questions to the RSGB by Trevor M5AKA

I recently put a selection of questions from Essex RSGB members to the RSGB General Manager Peter Kirby G0TWW. The questions and his answers are given below.

(1) Regarding the QSL Bureau, how many respondents did the RSGB get feed-back from following the request for comments in Radcom?

Answer: 354

(2) Do the RSGB feel they got enough feedback to make an informed decision on the future of the Bureau?

Answer: The results of the last membership survey indicated that less than 10% of the membership

regularly used the bureau so the response was quite good.

(3) Have any decisions been made yet on the future of the bureau and/or staffing levels?

Answer: No

(4) If not, what are the next steps, will members get an opportunity to vote on different options?

Answer: The responses will be collated and presented to the Board in the form of a report. From the responses that I have sighted the respondee's seem polarised in the view that the bureau should be used by members only and that large DxExpeditions should be charged extra for processing the cards. At this time there are no plans for a vote, but that would be Board decision.

(5) What percent of income is spent on running the bureau? And how much is that, in real terms?

Answer: 2 Percent. In real terms £32K per annum.

(6) What about re-instating the QSL column in Radcom?

Answer: Would love to reinstate the column on a bi-monthly basis if someone is willing to write it. We have had no volunteers since the late John Hall.

(7) Who came up with the idea of using Remploy to deal with the QSL 'backlog'? And how much is that going to cost?

Answer: It was an HQ initiative. £6K

(8) How many new subscribers took up the "One Guinea" membership offered in July 2003?

Answer: 1583 took up the offer.

(9) How many rejoined at the full rate, after the special offer ended?

Answer: 584 have continued with membership and this figure continues to go up.

(10) What was the cost of this marketing exercise?

Answer: 300 continuing membership was the breakeven figure we are nearly a 100 percent up on that so the exercise was a success.

(11) Will the Contest committee reinstate the RSGB 40M Contest now the sunspots are in decline?

Answer: The whole RSGB contest portfolio is under review at the present moment. The Board will receive the review team's recommendations at the November Board meeting.

(12) Does the Society plan on buying up any more lame duck products like Radio Today (HRT) and RAC (Flying Horse) Callbook?

Answer: Not worth answering this question. The Society is in the business of promoting the hobby and will continue to do so. Radio Today was a success we closed it down because we could not get over the distribution cartel run by WH Smiths. Try to get PW in most newsagents and you will see what I mean. Puzzled by the reference to the Flying Horse callbook. Although it bears the RSGB logo it is produced in Germany. We buy it in and it is not a loss leader. In fact it makes money.

(13) How much are the running costs for GB4FUN? GB4FUN costs around £30K a year to run. It is financially supported in full by the Radio Communications Foundation. The money comes in via members donations and sponsorship. No subscription income or other RSGB income is used in support of the project.

Shortening The Dipole

by John G0NVZ

The half wave dipole is probably the simplest and most energy efficient of all radiators. When fed at its centre the radiation resistance is typically 72 Ohms. A single half wave dipole radiates equally in all directions normal to its axis, with radiation falling to zero off its ends. Hence a vertical dipole is frequently used where "all round" communication is required and no communication is required vertically upwards. If a highly conducting "Earth Plane" is available, a car roof for instance, then a quarter wave monopole suffices, as the lower half of the half wave dipole is effectively formed by the ground plane. The feed point impedance is now halved but still resistive, ie 36 ohms. However, the use of a quarter wave monopole (fed at its bottom), and ground plane has the slight disadvantage that the radiation resistance and the feed point impedance, although still purely resistive are then only half that of a full half wave dipole.

Sometimes, for reasons of space etc a full half dipole or a quarter wave monopole may be too large and a loading coil or an ATU is necessary to obtain a reasonable match to the feeder and TX.

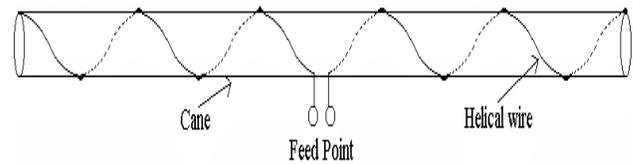
I wanted to install a horizontal half wave dipole for 6m in my loft space, and I required to turn it through 360 degrees and as this was impossible. I investigated the use of shortened dipoles.

Capacitive loading is most effective when applied near the far ends of the antenna, i.e. near the high impedance, high voltage ends of the antenna. Inductive loading is most effective when applied near the high current region, (i.e. at the centre of a dipole, or near the bottom of a quarter wave monopole over a ground plane).

Contraction of the antenna length from a half wavelength in free space, (or a quarter wavelength above a ground plane), causes a rapid reduction in the radiation resistance leading to loss of signal, both transmitted and received. I reasoned that, if I could increase both the inductance and capacitance of my shortened dipole, and at the same time leave these parameters distributed along the dipole in roughly the same manner as in a full length dipole, the loss would be less than if I were to use lumped inductances and capacitances at specific points. I decided that the distributed inductance and capacitance would take the form of a well spaced out helix forming the arms of the dipole.

I used a garden cane of the right length as a former on which to wind the rather well spaced out helix. There then followed many experiments using, firstly, a dip meter and then a 6m TX and VSWR meter in which the total wire length and number of equally spaced turns along the cane were varied, always keeping the length of the helix virtually equal to the length of the cane until resonance was achieved. A very rough indication of the appearance of the shortened dipole is shown in figure 1 below. (Note however that the length to thickness ratio of the

cane and the number of turns are not accurately represented in the diagram).



The successful dimensions and the relevant statistics were as follows:

Centre of 6 m Band = 51 MHz. Free space length at 51 MHz. = 5.88m. Expected length of $\lambda/2$ straight dipole is 5% less than this = 2.79 m. Total length of cane Aerial = 192 cm, corresponding to a reduction factor of $192/279 = 0.689$ of a true half wave dipole.

Approximate diameter of cane = 1.1 cm.

Resonance achieved when each half of helical dipole contains 190 cm of wire, (Note almost identical to total length of cane antenna), wound into 36 turns.

The shortened dipole was fed at its centre with 50 Ohm coax via four small ferrite rings which just fitted over the coax and were pushed up close to the feed point. These act as a "Choke Balun" to prevent any current from flowing down the outside of the outer of the coax to stop this from acting as part of the aerial.

The shortened dipole was fed at its centre with 50 Ohm coax via four small ferrite rings which just fitted over the coax and were pushed up close to the feed point. These acted as a "Choke Balun" to prevent any current from flowing down the outside of the outer of the coax to stop this from acting as part of the aerial.

The shortened dipole used multi-stranded tinned copper wire approximately 0.035 inch (0.889 mm) in diameter. Calculations based on RadCom May 2001, page 55 suggest that the losses of the extra wire used are very low. The radiation pattern is expected to be substantially identical to that of a full half wave horizontal dipole. It is 69% of a normal half wave dipole and has proved to be an extremely useful 6 metre antenna.

This article has been heavily edited for reasons of space. The whole is well worth reading and if any Member would like a copy of the full article apply to me, Geoff G7KLV

CARS Brains Team Enjoys the Dengie Quiz Night

Geoff EDM, Tony YTG and Fred FXM together with their ladies had a very enjoyable evening at the popular Dengie quiz. They came equal fourth out of six competing teams, very creditable, but they did even better for raffle prizes!

For Sale Sigma SLS-40K-PRO-C 40M shortened dipole complete with Balun. Only 38' long. Very good condition, only £75. Contact Dick G4DJC on 01245-256416 or email g4djc@yahoo.net

Please don't forget your subs! If you don't pay up before 25th. December this will be your last Newsletter. Sorry but that's how it is!