



# Chelmsford Amateur Radio Society

Established 1936

Affiliated to the RSGB

Club Call Sign: G0MWT

President: Harry Heap G5HF

Chairman: John Bowen G8DET

Secretary: George Farr G3UTC

Treasurer: Brian Thwaites G3CVI

Newsletter No 464

Web Address: [www.g0mwt.org.uk](http://www.g0mwt.org.uk)

October 2004

## This Month's Meeting The CARS Annual General Meeting Tuesday October 5th. at 7-30pm at the MASC Beehive Lane

There are some clubs that offer free drinks at their AGM. Not us, we like to think that such bribery is absolutely unnecessary! We try to make our AGM's worthwhile events in their own right

Granted, there is a certain amount of official business to be done, reports from our executive officers, distribution of certificates, awards and trophies, elections to the Committee etc but it is all done in light hearted, although business like, way. It is also a chance to socialise, make new friends and meet old ones.

As if that were not enough, we have persuaded our President Harry G5HF to tell us all about squeezing 'effective' top band' aerials into pocket handkerchief size gardens! That is, of course, in addition to his Presidential duties!

As usual we will be holding our raffle which this month is organised by Colin TRM and Geoff KLV. Your support is appreciated and goes a long way towards the venue hire charge as well as keeping our subs down! Talking of which.....

### -----Subscriptions Are Now Due----- Dates for Your Diary

October 5	CARS Mtg. AGM MASC 7-30pm
October 13	CARS Cttee. Mtg. Danbury Village Hall 7-30pm.
November 2	CARS Mtg. MASC 7-30pm. Harry G5HF and WWII

### The Club Net Controllers

October Harry G5HF

November David M0BQC

December Chris G0IPU

### Resignation of CARS Hon. Secretary

It is with much regret that we have to announce that George Farr G3UTC is resigning from the Committee and his position as Hon. Secretary. His decision is for entirely personal and family reasons.

George has been doing a grand job as Secretary for the last year and took over from David M0BQC, a hard act to follow! George took up his duties with enthusiasm and with a dedicated sense of how the job should be done, which suited our Committee very well! As well as involvement in his secretarial duties George also joined in our other activities, operating at Sandford Mill, organising our raffle and generally giving us the benefit of his many years experience as an active amateur.

It was very soon obvious that whatever George did, his wife was never far away, always ready to help! Jean assisted George in all his official duties and was always ready to take on the raffle and generally mucked in with the rest of us, often adding a calming influence on our, occasionally, unruly Committee meetings! I will miss her! We will all miss her!

The Committee wish to thank George and Jean for their services to our Committee and take this opportunity of wishing them well in their retirement. We hope they will continue as Members of the Club and that we will be seeing them both at our future meetings. Geoff G7KLV.

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

For details contact our Secretary: George G3UTC on 01277-622707.

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](mailto:geoff@g7klv.free-online.co.uk)

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**Please advise changes of address to Geoff G7KLV.**

## Last Month's Meeting

### HF Backpacking by Tom Robinson

#### GOSBW

Tom started his presentation by stating that "HF Backpacking basically means walking around talking to people on HF". After giving a short outline of the content of his talk, he told us about the history of his involvement with HF backpacking.

The main reason for his interest was due to constraints near to where he lives, being limited to a wire antenna at home and unable to use beams. Also, he does not have an amplifier, so he is unable to run more than 100 watts. As a result of these constraints he was unable to work much DX. He had a go with QRP, mainly on 40m, and also worked Russian satellites, which was interesting but he wanted to do DX.

Tom read that it is possible to do well if you are operating from a car near to the coast. Therefore he drove to the beach, and his first QSO was with a W6 in California! During the summer though, he found that due to the amount of people around, it was often impractical to drive onto the beach. For this reason he decided to park near to a beach and to go portable. Tom then thought that rather than having to carry his kit from the car to the operating position, it would be better to operate while he is walking on the beach. With an Alinco DX70 and a Hustler antenna, fastened to a frame that he had constructed, with a quarter wavelength counterpoise Tom had a go at this and found that it worked very well. The equipment was fairly heavy though, which made this quite uncomfortable. He tried several different ideas though, and has been working pedestrian mobile for about 3 years now.

Now, Tom has a standard route that he uses, near to his home in Point Clear. On this, he walks about 5 miles, and he usually does this more than twice a week. As a pedestrian mobile operator he has worked every continent except for Antarctica, and has been called by a Falkland Island station! He does not use more than 50W.

He started to investigate why he was getting the results that he was, with low power and a small antenna. The main areas that he was working, mostly on 17m and 20m were the United States, the Caribbean, South America and the South Atlantic. He did some computer modelling of antenna performance, and found that over land the vertical antenna (which he was using) was useless when compared to a dipole. The same antennas were then modelled over seawater. At the critical DX angle, the vertical aerial showed a tremendous increase in signal strength.

A small world map was then overlaid onto a map of the area in which Tom was working from, and from this it was evident that the main areas where he was working to were in directions over water.

Tom found that Pedestrian Mobile suits his technical ability; propagation comes in to it, but thought that the most fascinating thing is the interaction with the topography of the ground that he

is working on. For example on the side of the mountain, there is much better performance away from the mountain, as the mountainside is effectively acting as a reflector.

Next Tom discussed the equipment that is required in order to work pedestrian mobile.

- Transceiver
- Power Supply
- Antenna System
- Backpack – To hold the items securely and comfortably

The 'ideal' transceiver was then discussed, which should have the following characteristics:

- Shouldn't be too heavy or too big.
- A low current requirement on receive is necessary. Otherwise it is possible that your batteries will be dead before you even transmit! The Alinco DX-70 was found to be very good on receive; it never takes more than about 500mA on receive.
- A detachable head is nice, as this enables the weight of the rig to go in your backpack while it is in use.
- Should not be too low power. It is not really worth working QRP (5W) while pedestrian mobile. It is a lot better to go to 10W or to 20W for this. Going from 5W to 20W, although only a few dB's makes the world of difference and could be the difference between making a contact and not making the contact.
- A wide range internal auto tuner is also required. The reason for this is that a resonant antenna could easily go completely out of tune when the shape of the ground around you changes.

Unfortunately there aren't any transceivers available that are 'ideal' for HF backpacking. The closest one would be a Vertex VX1210, but this is not approved for use in the UK. Also, it costs four times as much as any normal amateur rig. Rigs designed for motor vehicle use are usually adequate.

In addition to the Alinco DX70, Tom uses an Icom 703. This has a detachable head, and a built in Antenna Tuner. This only has 10W output though, so a separate amplifier is used to take the power to 50W.

When he uses the Alinco, he uses an LDG Automatic Antenna Tuner, which draws very little current. Note that Martyn M3VAM also recommends this tuner.

The power supply used for HF backpacking should have a sensible maximum capacity of 7AH-s. For 50W operation, a Gel Cell of this capacity would work for about two hours. These are not perfect are quite heavy, but they are quite cheap.

NiCads could be used, although these are a bit old fashioned. A better bet is a Nickel Metal Hydride battery. These are half the weight per ampere-hour of a Gel Cell.

Lithium Poly batteries are likely in the future, although these have a tendency to explode if they are mishandled. They are quite expensive as well.

A number of antenna types can be used for HF backpacking:

- Verticals – Best for mobile operation
- Dipoles
- Variants

Tom has always used a 'drag' counterpoise for his HF backpacking. This is a quarter wavelength and does not weigh much. Recently, he has started using a capacitive loading earth. This is due to the upper bands not being open so much now, and the counterpoise needs to be very long. 40m is fine and can easily be managed, but 80m is 'a real drag'. Automatic Tuning Units are essential due to the way in which the ground changes depending on your location.

Ergonomics is very important. To begin with, Tom would work for an hour or so until the equipment became uncomfortable. Nowadays, much more time is spent ensuring that the equipment is lightweight and comfortable.

Due to the sunspot cycle, lower bands (40m and 80m) now pose a challenge. Coil loaded antennas can be used for this. These are vertical aerials though, which means that it is fairly easy to work Germany and around the edge of Europe. It is not possible to work people in England though. They can be heard, but not transmitted to, due to the low-angle signal that is transmitted. Tom is currently working on a backpack that allows the angle of the antenna to be changed, which will hopefully enable him to talk around Britain.

Normally a backpack is used for HF backpacking, although this is not essential. It is important that the backpack is comfortable, and that it holds the rig and any other required equipment.

Originally Tom used small pieces of paper for his logging, but he now uses a Palm PDA, from which he can transfer data onto logging program on his PC. From this he is able to easily see QSOs that he has previously had with people, and that they are often very surprised when he, as a pedestrian mobile, knows about these!

Two Yahoo! Groups that are very good for HF backpacking, these are:

**European Portable Radio Group - EPRG:**

<http://groups.yahoo.com/group/european-portable-radio-group> **hfpack** · **HFpack. HF Portable Group**  
<http://groups.yahoo.com/group/hfpack>

Next we heard an audio tape of some of his QSOs. The tape was made by W5SAM, who was bicycle mobile at the time. Tom was 200 ft. below sea level in Death Valley, on a golf course. While he was on this golf course, suddenly some water jets started operating where he was. He moved away from the water, and some more jets started where he had gone! He moved again and another jet started where he was. It was as if someone was chasing him. On leaving the golf course he found out that this was actually the case, as the ground on the golf course was under repair!

Tom then showed a video of him operating pedestrian mobile which his wife took while they were on holiday in America.

Tom finished his talk by saying that low power pedestrian mobile is usually helped by the other operator's antenna system, although he said that the 'jewel in the crown is to work another pedestrian mobile station.

Thank you Tom for a very interesting, informative and enjoyable evening.

*Footnote from Martyn M3VAM: Anyone interested in Back Packing should read a book titled Ultra Light HF'n by Dave Ingram K4TWJ who writes a monthly spot in CQ Magazine (USA)*

**Our thanks to Jim 2E0JPS for this comprehensive report.**

## **A Good Cause by Bob Hastings 2E0BOB**

My wife Margaret has had cancer twice, most recently in 1997 when she had breast cancer. She is doing a trek to raise money for Breast Cancer Care (Reg.Charity no.1017658)

The trek is a gruelling 60 miles along the Great Wall of China, otherwise known as the 'Gigantic Dragon'. The trek starts in Gubeiko, then on to Simanti, takes in the Wuzoulou Mountain where she has to climb to 1100m and the Black Dragon Park where she has to ascend a gorge, and ends in Beijing; all to be done in six days .

She is trying to raise £2500 for the charity and I would be grateful for any donation you feel able to give.

Donations can be made by:-

Cheque payable to Breast Cancer Care

c/o 2 Boleyn Way. Boreham. Chelmsford.CM3 3JJ

Or by credit card on [www.justgiving.com/maggieh](http://www.justgiving.com/maggieh) which is paid directly to the charity.

Or cash of course! See me at the Club meeting.

## **Subs are now due!**

### **From our Mail Box**

**From David Worboys M3CCM/KG4ZLB**

*This is the final part of a long letter from David*

As we go to air Hurricane Ivan is making its way across the Caribbean and could strike the United States. CQ's newsdesk Hurricane Center, WX4NHC, was to be reactivated for Hurricane Ivan at 2 PM EDT Thursday, Sept. 9, and will be active on Friday-Sunday 8 AM-11 PM EDT. The Hurricane Center will be on the Hurricane Watch Net on 20 meters as well as the VoIP Hurricane Net,. The latter is a combination of IRLP and Echolink stations.

The Cayman Islands and Jamaica are the next locations in the path of this extremely dangerous Category V Hurricane which now has maximum sustained winds of 160 MPH per the latest advisory issued at 5 AM EDT Thursday morning. VoIP Net Control Station Rob Macedo, KD1CY, says they are trying to coordinate with the IRLP node owners on the Cayman Islands and Jamaica on usage of their nodes and liaisons to those affected

areas. Currently there are no Echolink or IRLP nodes in Cuba.

National Hurricane Center advisories indicate that the path of Hurricane Ivan is not clear after it passes over Cuba on Sunday. Residents in the affected area should monitor the situation closely.

There is a possibility that the hurricane's forward progress could slow and emergency nets may be activated for an extended period of time. It also means that ham radio communications volunteers could have a lot more to do in the coming days.

### **From John Yates OH/G1UZD**

Holiday Operating in Finland

My Finnish wife and her family have a summer home set in the forest beside a lake. It not only makes a beautiful holiday retreat but an ideal Amateur Radio QTH for a number of reasons – nearest neighbours are 2km away – electrically quiet – on a hill overlooking a large stretch of water – plenty of room for antennas if needed.

I have worked on 6m for some years now from here and have been very successful having achieved over 100 countries. In the process I have made friends with a number of Finnish amateurs. This year, for 6 weeks during July and August, was different in that the UK and Finnish authorities have dropped the Morse requirement so I could operate HF in Finland for the first time.

I use a Yaesu FT-100D transceiver which covers HF, 6m, 2m and 70cm running at 100W into a 2 element beam on 6m, 5 element on 2m and a Cushcraft R6000 vertical for 20m through to 6m. Being just about at the bottom of the sunspot cycle and at such a northerly latitude, I thought the going was going to be difficult. However, I managed 73 countries on HF and had a couple of very nice openings on 6m. The elevated position and adjacent water I'm sure helps enormously, in fact Finnish amateurs comment on my success. Many OH amateurs have huge masts and antenna arrays to compensate for being so far north but my small holiday setup does very well. Being so far north however has its compensations – I've become quite expert at working aurora propagation on 6m and 2m!

Being the family's summer home, I can leave antennas, power supply, feeders etc. stored on site during the harsh Finnish winters and only bring the small rig home each time. Operating from Finland is always an enjoyable experience especially as I get some pile-ups with the callsign. If you get the chance to operate from overseas, try it. Plan your station thoroughly beforehand though, because you might not have a local store to get that missing adapter!

### **Silent Key Sale (Donald G0VIS)**

**Kenwood TS570D(G) HF DSP** Transceiver all bands and continuous Rx. coverage. 100 Watt TX.

Martyn Lynch considers this is ideal for new users to the HF Bands. It is well designed - each button/knob has a unique shape or feel.

**MFJ type 971** ATU. 300/30/6 Watt, Wire, Coax or Balanced.

**Nessel** 22 amp switch mode power unit. All in makers' guarantees until 25 November 2004, boxed, with all manuals and paperwork.

**All three items only £600** ( Original price was £1017) Please contact Charles, G0GJS on 01245-256654 or [charlesshelton2@charlesshelton2.free-online.co.uk](mailto:charlesshelton2@charlesshelton2.free-online.co.uk)

### **Silent Key Sale (Ralph G3NAA)**

**MFJ-564 DeLuxe Iambic Paddle Key-Chrome and Kent Electronic Keying Unit.** Both items in good condition. The pair £30 or near offer

Please contact Geoff G7KLV on 01245-473822.

### **News Item**

A reward of 500 microfarads is offered for the information leading to the arrest of Hop-A-Long Capacity.

This unrectified criminal escaped from a weston primary cell where he had been clamped in ions awaiting the gauss chamber. He is charged with the induction of an 18 turn coil named Milli Henry who was found choked and robbed of valuable joules. He is armed with a carbon rod and is a potential killer. Capacity is also charged with driving a DC motor over a wheatstone bridge and refusing to let the band pass. If encountered, he may offer series resistance. The electromotive force spent the night searching for him in a magnetic field, where he had gone to earth. They had no success and believed he had returned ohm via a short circuit. He was last seen riding a kilocycle with his friend Eddy Current who was playing a harmonic.

### **Calling Children Everywhere!**

Sir, I must protest at the actions of the present committee. A few years ago this club was quiet and peaceful, nowadays it is impossible for members to obtain a good months sleep without being bombarded by activities all over the place.

Previously dignified members are forgetting their senior citizen responsibilities, they are putting up aerials and then actually operating. Old equipment is being brought out from retirement and forced to work.

As for the new exam system, how can I demonstrate my superiority? These new licensees have had more tuition than we did. Apart from the three exams, they actually have to make a QSO as part of the course. In my day you had to find out how to do that yourself. They have a head start, and they also seem to change their call signs every few months. Most confusing. Disgraceful. It ought not to be allowed. Yours irately,

A.Grouser (Mr) G2SOUR

NB Mr Grouser is unable to attend the club meetings, as he is a resident of Toytown. Ed

*From the Verulam Club Newsletter, thanks!*

**Subs are now due.  
Our Treasurer Brian CVI will  
take cash but does prefer a  
cheque.**