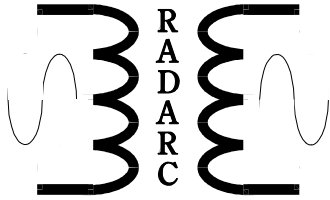


# RADIO

*The Journal of the  
Reading and District  
Amateur Radio Club*



May 1999

**Price: £2  
Free to RADARC  
Members**



**Never mind *wet* string ... it  
works just as well if it's dry!**

G3BGL demonstrating the wonders of static electricity

# **RADIO MAY 1999**

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<http://www.radarc.org>

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## EDITORIAL

At last! I hear you cry ... we have another newsletter. I know, sorry it's taken so long, but I have been rather snowed under with my work. It was a strange experience to start with a nearly blank diary in January, and within 2 weeks I had something planned every couple of weeks until September. I missed the AGM thanks to a trip to Sweden, and will miss the publication of this magazine due to being "on tour" with some technical seminars.

As way of mitigation, the picture below was taken from my hotel room in January. It took 30 hours to get there, and 36 hours to get back, but my 5 days on Kaua'i, Hawai'i (a part of the world so in need of a few consonants that they have to stick apostrophes everywhere) was a nice break from the usual UK winter. The thing is,

that due to the wonders of modern technology – laptop, modem & 'phone line – I could still be contacted as if I was at home or in the office. While I was there, I received an email from Ian, G8NXJ giving me a list of repeaters I could have accessed had I taken my handheld ... and modified it for the American bands. (Despite what you might think – I wouldn't have had the time anyway: it was for work, honest!)

It would seem that I'm not the only one to have been away. G8NXJ sent many of us a picture from his hotel room in Norway, which consisted of lots of snow and some log cabins. This was while he was on what ended up being a 6 week business trip. The picture is at the bottom of the next page for anyone who hasn't seen it yet.

Looking at the start of the year from a



Club point of view, there have been a series of extremely interesting talks. Like the ones on digital television and static electricity. You'll find pictures from these two in particular dotted around the magazine. My thanks to Nick, G0LGG for producing his digital camera at every opportunity.

I'll not be awarding any prizes to anyone who's noticed that the magazine has been printed A4 size this time... It's a way of making production much easier – I produce the layout, email it to Min, he sends a print file to the printer which both prints and staples the thing. It's not far off how a "proper" paper is done now!

Enjoy the rest of the read, and please send me something to put in the next one.

73, Des G8FIF.

# **RADARC 1998 AGM MINUTES**

## **Members Present**

G0LIE, G4JNY, G4JTR, G6IJK, G8FRC, M0BIY, G7UZY, G8NXJ, G0JMS, G0LGG, G0LHZ, G0TKV, G8ZTZ, G4ELY, G1HBD, G0VQR, Bill Lush

## **Apologies Received**

G0PUB, G8FIF, G4CCC

## **Quorum**

The constitution requires that 20% of the membership to be present at an AGM. The



total membership is 42, 20% of 42 is 9. There were 17 members present, so the meeting was able to proceed.

The Chairman presented his report.

The Secretary presented his report.

The Treasurer presented his report. A copy of the 1998 accounts is attached.

### **Awards**

The following awards were made;

Fox Hunt Trophy was presented to Chris - G4CCC by G8NXJ

Chairmen's Award was presented to Tom - G0VQR

G5KV Award was presented to Eric - G4PGM. The nominees for this award were discussed by those present at the meeting. The members present decided to make the award to G4PGM

Lifetime Membership was awarded to Eric - G4PGM

### **Subscriptions**

After a lively discussion the members voted (15 votes for to one against) to set the subscriptions as follows;

Full Member	- £12.00 per year
Concessions	- £ 6.00 per year

### **1999 Committee**

No other nominations others than those presented during the Chairman's report

were received. The Chairman's list was accepted and the 1999 committee is as follows;

Chairman	Nick G0LGG
Secretary	Jim G0LHZ
Treasurer	Min G0JMS
Publicity	Pete G8FRC
Newsletter Editor	Des G8FIF
Ordinary Member	Tom G0VQR

### **Any Other Business**

Bill Lush asked whether a "Novice" meeting could be held in which less experienced members could receive help and guidance. The committee will consider this.

Jim G0LHZ asked whether a mobile tower for Field days could be purchased. Jim was asked to make available some information on the type of tower to be considered.

Peter G4JNU proposed a vote of thanks for the 1998 committee which was endorsed by the members present.

The meeting was closed and Beer and Cheese were served.

**Jim Carter - RADARC Secretary**  
**2/Jan/99**

## **READY OR NOT, I'M COMING ...**

I don't suppose many Direction Finding competitions start like that, but effectively that's how they all do. One or more members of the group have to find a suitable place to hide, and at a given time the rest give chase. The competition

proper, if using VHF usually uses the 2m band, and could take place virtually any time of the day or night. The fox drives to a location, and sometimes stays in the car during the chase. The car must be hidden as much as possible, but on 2m too much hardware in the air would soon be spotted, so relatively straight-forward mobile whips are most frequently used. On the other hand, if using the H.F. end of the spectrum, 160m is the most commonly used band, and this means extra time and effort must be made to set up the station. The antenna is usually as long as possible, with several vertical sections to create a distorted radiation pattern, and the antenna, the equipment, and the operator must all be hidden as well as possible. This means, as a rule, the HF type competitions need carefully thinking through to avoid any accidents. Long lengths of thin wire should NOT be left unattended where animals or humans could get tangled, so the set-up is usually done on the day of the competition just prior to the start.

I would like to tell about just a few of the tricks that some of the competitors, and I, as a fox, got up to. The only uncertainty is some of the dates, and they are not in chronological order. These were originally all carefully documented and put onto five and a quarter inch floppy disks, and until only a few months ago, could have been retrieved. Thinking that I had no further use for them, and they were all made using BBC basic, the lot were all dumped into a very large skip, and probably dumped into an even larger hole, so this is all from memory. The first of several short stories, and there's more where these came from, (if my memory holds) goes something like this -

#### **DF N° 1**

Some time around 1963, at the Temperance Hall, West Street, a guest speaker at the RADARC was the popular DF Champion Eric Mollart, who had brought with him half a dozen handsome trophies, and he was going to give a talk to the club on Direction Finding. This inspired me to try my luck at building a receiver, buying a compass, a map, and generally preparing myself to 'do battle'. Armed with all the 'necessary', I went along to a local event, and with the permission of the organiser, joined in 'more or less' as a passenger. I must have got the first reading near enough right (or was it 'lets follow the crowd') because I found myself going in the same general direction as most of the others. There were a few that didn't! We were told that the hidden transmitter would be less than 10 miles from the start and having drawn the first line over the 'cling film' covered map I headed off as quickly as possible to get myself ready for the next transmission 15 minutes later. Clever me! - no one else nearby. It can't be wrong - I'm in the exact position shown by the line on my map and about 6 miles down range. Up comes the second transmission, and onto the map goes the second line. This procedure is repeated for transmissions 3 and 4 after which they would be at random. By the end of the afternoon I had NOT found the fox nor was there any likelihood of me doing so. Throughout the afternoon I had been adding where I should have been subtracting, (or is it vice versa? -- I'm still not sure), the 10 degrees (near enough) difference between magnetic and grid North. Because of this, I had been going round in ever decreasing circles, and when the location of the fox was announced at the end of the allotted time, I discovered that I was, by then -- about 5 miles adrift! No wonder there wasn't anyone nearby! Who's a silly Billy?

I tried just once more to be competitive, again with poor results. By now I realised that the injuries to my right foot that I had sustained 'at sea' (on a so called pop pirate Radio station) in 1964 was severely restricting my ability to run over rough ground, and was causing considerable pain. By chance, over lunch one day, I was having a chat with a friend, Dave, G3KLH, (we both worked for RACAL.) He was also a member of the Oxford ARS, and he was doing a direction finding event in the near future, for his club and some invited guests and he needed a 'fox'. I had never done this before, but after a few chats in the Clubroom, the outline was mapped out, and the idea appealed to me. He would supervise the hidden transmitter etc. then he would drive back to oversee the 13:30 start. All I had to do is keep my head down and follow the timetable of transmissions -- all very simple. Several meetings took place and the plans were finalised. The chosen site, which had been earmarked from a previous fishing visit by him, was in the crook of a bend in the Kennet & Avon canal near Woolhampton. It was about a mile upstream of the road-bridge, and in the very bottom left hand corner of the OS Map of the area. Sheet 175 from memory, although nowadays sheet 175 covers a different area. On the Southern side of the bridge there was a footpath along the bank of the river, but the other side was almost inaccessible (if approached from that direction), guess which side we chose? The antenna went right across the river into a tree, and the TX site was under the 'mat of roots' from a fallen willow tree. Apart from the long walk getting to the site through the 'back door', (not through the wooded area), everything was put into place easily and by 11 o'clock. Dave was on his way back to the start somewhere near Oxford, and I

was alone and wondering what I'd let myself in for! It was the close season for coarse fishing, so I never saw a soul, but it also meant that the undergrowth along the wooded side of the river had not been disturbed for a while, (a dead give-away). At the appointed time, I gave the first transmission and was told the signal was good and strong at the starting point. If it had not been, the first direction would be given to everyone by the starter. Transmission N° 2, 3 & 4 followed at 15 minute intervals, and by this time the first of the pack had arrived, quickly followed by others, but they were all on the wrong side of the river! They chased around the trees without luck until someone spotted the aerial made of thin wire, going across the river. I distinctly heard a couple of chaps say they were going to swim across, but I don't know whether they did. My attention had been drawn to the shrill alarm call of a Blackbird not too far away from me in the opposite direction, soon followed by the ever searching Eric Mollart! He'd done it again. When chatting later, he admitted that he had overshot the turning in Woolhampton and was heading towards Thatcham when transmission N° 4 was made. It was so strong with him that he was sure that it was coming from the woods just the other side of the railway lines. He was right. This meant a dash across a field, crossing the railway line, and then finding the 'back door' into the wood. I was only about 10 yards into the wood from the gate, but about a mile hard slog from the other direction. Was it luck, or was it skill? The man was so brilliant.

#### **DF N° 2.**

This story, a short one, takes place in the Christchurch water meadows near Oxford. The usual planning meetings took place,

and we made a visit to the site one evening to see if any special plans would be required. I'm glad we did because when we arrived there were several minor problems. The water meadows seem to go on for miles, and basically consist of a large, flat area with many ditches to assist in the drainage after a flood. Across the middle of the meadows, runs a track and these ditches run at right angles to, and also go under the track at intervals through 3' diameter concrete pipes. These water meadows are void of any trees, so no natural support for the aerial, or to provide cover for the transmitter, or to hide the car and, there was about 4" of water in the pipes. So plan 'B' --- (it's always plan 'B') had to be applied. The solutions were quite simple:-

- The start was only a few miles away so a very poor aerial might do.
- One of the pipes under the track would give perfect cover for the transmitter.
- I wouldn't take the car, and
- I would build a platform to go across the bottom of the pipe.

Six pieces of old floor boarding nailed together made a suitable platform about 3' x 2' which would keep me and the gear a couple of inches above the water level. On the day of the competition, an early start was necessary so that all the gear was carried to the hiding place and the transport driven away before any suspicions were raised. Having said my goodbyes the brain went into overdrive -- had I remembered everything? Tough! I'm 30 miles from home and wearing 'wellies', so this is it. Let's get started. The rig was one of the low power manpacks that are made where I worked. This only weighed about 7 pounds including the battery pack. The aerial was a simple long wire, About 200 yards long! It was all below ground

level. From my hiding place I simply ran out as much wire as I could, keeping it as clear from ground as possible, (at best only a couple of inches) by walking downstream along the ditch and tucking the wire, under the overhanging grass at the top of the ditch. Sometimes pegging it down with wooden skewers, (kebab sticks, soaked in some old, used, paintbrush cleaner - with a touch of matt black undercoat purely to discolour them,) with a split in one end for the wire. A very poor aerial really but with the aid of a simple AMU it did at least, radiate sufficiently well to reach the start point. The idea of walking downstream from the hideaway is so that the trickle of water would wash the muddy water away and not give the game away. Walking upstream would have had the opposite effect.

At the end of the day, over a cuppa, I was told of several chaps virtually running all over the field looking for the 'invisible' sky hook. One or two did find me but they got their trousers wet crawling into the pipe. I did manage to keep mine dry.

A couple of things did come to the surface through this exercise:-

- When finding a hiding place DON'T choose a concrete pipe if you suffer from claustrophobia.
- Make full use of a tape recorder, or at least a tape player, directly connected into the transmitter. When I tried a test transmission using a microphone, (no transmitter--just a microphone) (only kidding) the echo in the pipe drove me up the wall, and could also be heard a fair distance from the lair. If you're going to be a fox - think like a fox...

**DF N° 3.**

This tale is about another Sunday 'club event' which took place some time in the mid-sixties. For this event I had to get assistance from some 'fishermen'. My elder brother was match secretary of the Binfield Heath Fishing Club, and he 'arranged' a fishing match between some members and some volunteers! No one was really interested in catching fish but to make it look authentic some were actually using bait. The main purpose was to create some camouflage. The location of the match was on the River Thames about a mile upstream from Shiplake Lock, and about two miles downstream from Sonning. We were on the Southern bank, and the start point was near Shiplake, on the northern bank, only about a mile or so away from the hidden transmitter. The only (legal) way across the river was by way of the road bridges at Sonning and Henley-on-Thames. The hidden transmitter site was quite successfully hidden amongst the fishermen. One of the 'competitors', (me), like all good fishermen, was tucked under a very large umbrella, and the fishing rod was a 'roach pole' blank. (This is a one piece fibreglass, hollow, tapered fishing rod about 14 feet long) This pole was wound with about 80 feet or so of thin wire and a further 50 feet of this wire was loosely wrapped around the mono-filament line that went to a large float and a large weight holding it all nice and taut. The wire was terminated before it reached the float so that the end didn't droop into the water. From only a few yards the aerial looked like any other fishing rod. It certainly fooled the 'hounds' for quite a while. The chasing Pack (of about six teams) reached the opposite bank in a very short time, but were halted by the river. They were so close that I had to use my tape-recorded transmissions for fear of being detected. By their actions and lots of finger pointing it was obvious that they

reckoned the transmitter must be somewhere across the fields behind the fishermen. One competitor was heard to say he was going to swim across only to be persuaded not to for fear of upsetting the fishing! A few started to make their way towards Sonning to cross the river, but an enterprising couple stayed behind and managed to get a ferry across the river from a passing launch. They were landed upstream a couple of hundred yards away and were last seen running furiously away from the transmitter. I thought - let's give them a few minutes - then another transmission - I saw them again later... exhausted, having run about 2 or 3 miles when they could have walked just a few yards! They were not pleased, but they did see the funny side of it - eventually.

#### **DF N° 4.**

The date of this tale has been imprinted in my memory as the 17<sup>th</sup> September 1972, simply because it was the day of the very first '3 Station' National Direction Finding Contest Final that ran from 12:50 - 16:30 local time. The event was being hosted by the Oxford ARS (I was never a member - only a guest) and they needed three hidden stations instead of the usual two (in the early 50's there was only one) so I became the first ever 'Station C'. The start was somewhere between Reading and Oxford, I think it was near to Christmas Common, and Station A was only a couple of hundred yards from the start and running only a few milliwatts - after going through an attenuator - into a very long barbed-wire fence! It must have been a mile long, but because the signal was so very strong, everyone without exception decided to tackle this one first. Station B could not be heard too well at the start point so the distance, (Signals, rule (c),) and the bearing, (which must pass within 4 km. of the hidden transmitter), (Signals rule (b),)

was given to the competitors. The reason for the absence of signal was twofold.

1. He was a long way away, close to the Western edge of the map, and
2. He was alone and had not enough time to get a decent aerial organised.

The station was hidden by the side of a disused piece of road, in the Hungerford / Swindon area. It might have been a part of the A4 before the M4 was built. The station could be seen from the M4, but could only be reached by an over-hill 2 mile slog from the North. It must be remembered - the fox also has to take the same tortuous route to the hidden location, but, probably carrying ten or twenty times as much weight in gear and batteries etc. He was found by about a dozen teams. When you manage to reach the National finals, you are pretty good at the game, and these obstacles are not too much trouble to overcome. The OS Maps must have covered much different areas those days because there is no way the three stations could be hidden where they were using the OS Map Sheet 175 of today. From memory I believe the Western side of Reading was on the right hand edge of the map then. It's all to the left of the middle now. Station C (yours truly) was located at Burghfield Common, on top of a steep hill. The aerial was a wavelength and a quarter (about 600 feet) long, and from the side looked like a part of a descending staircase down into the valley. There were two vertical sections, and three horizontal sections, plus a few bends to hide the wire as much as possible. Working back from the far end of the aerial, first there was 100 feet horizontal, then 40 feet vertical, then another 200 feet horizontal, followed by the second 40 feet vertical, then another 200 feet to a point about 20 feet above the hidden transmitter. The far end of the

aerial was about 40 feet above ground but about 60 feet below the level of the transmitter. All figures very approximate. The site of the transmitter warrants a mention. A false 20 feet vertical section of aerial wire from a tree branch near to the end of the aerial was deliberately made visible by using light coloured plastic covered wire. A stone attached to the wire was lobbed into the centre of a very large patch of brambles (60 feet or so across and about 10 feet high). I had quite a problem stopping myself from laughing out loud at some of the antics performed trying to 'flush me out' from this very large blackberry bush when I was already outside!

My actual hiding place was about 30 yards from the bramble bushes in the middle of a clearing, which had a shallow depression, about a foot deep in the middle. It was probably a drainage ditch at one stage. The late summer / early autumn had been dry, and there was a deep litter of dry leaves throughout the woods. An easy hiding place, I'll push a few leaves aside, blow up my 'drab olive' coloured Lilo, check all the gear out, wrap all the unwanted gear in a groundsheet, hide it under a bush, cover it with leaves. Then I'll wait, and wait, and wait... there's time for a quick bite to eat etc. then I must hide everything, including myself, under the leaves, camouflage net covering my head, and more waiting. Test transmissions (on a different frequency) concluded, - time to settle down to the timetable. For the 'National Final' the transmission times are slightly different, 12:50 - 12:54 CW, 12:54 - 12:56 Telephony (AM), 13:30 - 13:32 CW, 13:32 - 13:34, 'phone, 13:34 - 16:00, Random, 16:00 - 16:02 'phone, 16:02 - 16:15 Random, and 16:15 - 16:30 Continuous. I never saw anyone for an hour or so until Bill, G3TRY, stumbled

upon me - he said - "by accident". I was his second find from the three hidden stations. He had decided to tackle the three stations in A, C, and B order. He was the only one to come onto the site from the higher ground. There was a big pathway that went down into the valley, and all of the others followed it automatically. From my hiding place, I could see the competitors thrashing around the thick bracken that covered the slopes of the common, and running around the vertical sections like Indians round the totem pole. Some of the tricks that a few of them get up to are things like - breaking the aerial wire (forbidden now, General rule (g) presumably to see which side the signal was coming from) - running off in the wrong direction - then stopping to 'adjust' something, hoping that some others would rush past them into the land of the "also ran's", but the best one I ever encountered

was at the hands of the great Eric Mollart. He had two helpers, (three maximum General rule (f) ), who helped Eric in the following way. When he knew that he was within, say, 50 yards of the hidden transmitter, he would keep appealing for a signal. This served two purposes:

- If a signal came up he would then know that the hidden transmitter was within earshot.
- His two helpers, who always flanked him by 25 yards or so, would charge through the undergrowth, one shouting "Alpha Beta Gamma Delta", and the other shouting "Eeny Meeny Miney Mo". He himself stood perfectly still with his hands cupped tightly over his earphones trying to determine which, if either of his two 'beaters' could be heard over the transmission, he would then



know how close he was getting.

It worked very well and it was not long before I was signing his 'timesheet'. I recall that it was just after 16:00 - very good going - all three stations in just over three hours, after about fifty miles of travel, at least six miles of which must have been on foot. At the end of the day I was complimented on the set-up. It was said that from the edge of the clearing it was impossible to see anything except the light coloured bit of wire - bit sneaky really - I think they all fell for it - for a while anyhow.

#### **D.F. N° 5.**

Yet another tale involving the Oxford and District ARS, Dave - G3KLH, and myself. This time we're both going to be the fox, because this hidden transmitter needed two people to set it up. The location was near Cray's Pond. On the road towards Goring and Streatley, about half a mile or so from the crossroads, there is a track that goes off to the left down into the woods. I have no idea where it eventually goes to, and we are not really interested, as this little story takes place in the first 200 yards of the wooded area only. The track turns left and skirts the wood along its northern edge. I think the track had been cut out of the side of the hill many years ago, and at this point it is about 10 feet lower than the fields to the left. Along the edge of this field were several large oak trees with root systems that were exposed a lot at the track-side, but just out of reach from below. It was amongst the roots of one of the trees that we hid the transmitter. The aerial was a simple end fed chunk of wire run out over the branches of nearby trees. I had taken my car and an extension ladder so that we could build up the station from below although without a ladder it was only

accessible from above. The DF hunt proper was an evening affair and was scheduled to last only an hour or so. It was Dave's turn to hide, so with the aid of the ladder, he and the gear were well hidden amongst the roots of the tree. I added a few sprigs of green to help with the camouflage, then retired to the car to await results. Before long the pack descended



#### *Editor's note*

*This article was written by Eric, G3PGM who was made a honorary lifetime member at the AGM, as well as being awarded the G5KV award.*

*In the picture above, Eric is holding the G5KV Award Morse Key, and his certificate of honorary membership.*

*The Club holds 2m VHF foxhunts about every 6 weeks, and these generate tales of their own ... like people hiding near nettles knowing that at least one hound would be wearing shorts!*

*Speak to the committee if you'd like to come along.*

upon us but none of them knew me so my presence was more or less ignored. One enterprising pair decided to try a rather large loop carried by one of them and the receiver carried by the other, the two units coupled by coaxial cable. This was OK until they charged off into the wood, side by side, one going the left side of a tree and the other one going to the right.. The two units parted company, and the dejected pair left the area. Several teams found the hidden transmitter, but became frustrated finding themselves unable to reach him, and because the site was so exposed, were not prepared to give the game away too easily to the other competitors. Their only answer was to find a way into the field and sneak up on the transmitter from above.

#### **DF N° 6.**

This is a short tale is about an evening DF hunt that took place in September 1964. I was asked by a member of the Loddon Valley AR Contest Group, G3UAB, to provide a direction finding contest for 'a fun evening' event. He thought it might be a good idea if I would chose the hidden transmitter site anywhere on the OS map, sheet 175 and he did not want to know where. After a lot of thought and naturally wanting to stay near to home, I had what I thought would be a good idea for a hiding place. Several years earlier I had become very friendly with a fellow Amateur Photographer who's father was the works manager of the Ham River gravel pits (now defunct) at Woodley (The truth was, I had been rather sweet on the very attractive youngest daughter). However, during one of my 'unsuccessful' visits, I had got the OK from him to do a bit of photography and fishing in one of the several gravel pits that surrounded his bungalow. I had found a rather nice spot to

fish from that jutted out into the lake about 20 yards. This heap of waste gravel had, by now, become established with all sorts of waterside plants, and there was a sort of causeway that made access quite easy - then! I decided to pay him a visit, and was not too surprised to find that his daughter had married, I had only been away 13 years! (she couldn't stand the waiting I suspect!) However, the son was still there and keen to assist in the plan. By now the 'causeway', and the heap of gravel at the end, were both very overgrown with small willow trees and lots of brambles, nettles, plus sundry obstructions. Bad enough in daylight, but this was an evening event, and by the time they reached me it would be quite dark. A safety warning here, any event after dark must be carefully planned to avoid putting anyone at risk. To this end, I made sure that the water was only knee deep for quite a distance from the bank at this end of the lake, and the bottom, beneath a thin layer of silt, was firm gravel, although no one even tried to cut corners and wade across.

On the evening of the hunt, my friend rowed me and the gear to the hideaway by dinghy so that the undergrowth in the immediate area would not get trodden down to give the game away, and he helped set up the station before going back the same way. The gear was a very simple two stage crystal controlled TTX. This was crudely modulated in the emitter of the PA stage, and a Perdio 'Town & Country' domestic receiver (it was all on A.M.) that covered the 'shipping bands' up to about 3MHz, a smallish 12 Volt car battery, and a simple centre loaded 'top band' whip. No one at the start new where I was, or how much power I was running, and I did not know whether, with such simple equipment my signal would reach the start point, so a sealed envelope was deposited

with the starter giving the grid bearing only. Start to finish was only about 3 miles, and it turned out that the signal, although low on modulation, was loud and clear. Because I was so near most of the pack overshot the hidden transmitter. The event as a whole was a great success, and most of the pack (about 6) eventually found me - and stayed with me until it ended at 21:00. I think the competitors needed a breather, and I needed some company. I do not scare easily, but stuck out into a lake, with nothing but wild life for company can be very scary. The alarm call of the common moorhen is VERY loud and can travel across still water for great distances. It is a very shrill warbling screech, and one must have stumbled upon me trespassing on his patch. He let it all go about a foot or so from my right ear! I almost befriended a water vole (some people call them water rats, but they are not rats at all). He shuffled around, had a quick sniff at the gear, found it inedible, and went on his way. They are quite attractive really, or was I just lonely? Three hours is a long time.

## **RADARC LIBRARY AND EQUIPMENT LOAN SERVICE**

This service works as follows:-

All books and most equipment on the accompanying inventories can be borrowed by Club Members. Most of this is held by the Club Librarian, Vin Robinson, G4JTR. As the entire Library and Equipment stock will not be routinely brought to the Club for each meeting, members are invited to communicate with

me prior to any Club meeting and request items they wish to borrow in advance. These will be then brought to the meeting. All items should be returned to me at Club meetings. Items can also be collected from and returned to my home address in the evenings and weekends with prior arrangement.

**Note:- A refundable deposit is required on all borrowed equipment.**

Contest equipment can be borrowed by any member or group of members for Club sponsored contests with the permission of the committee. Most of this equipment is held by committee members.

To contact G4JTR:-

Phone

0118 947 6873 Home

0118 953 5310 Work

E-Mail

G4JTR@radarc.org

VIN@4HILLTOP.freemove.co.uk

433.500 MHz (SU20) or

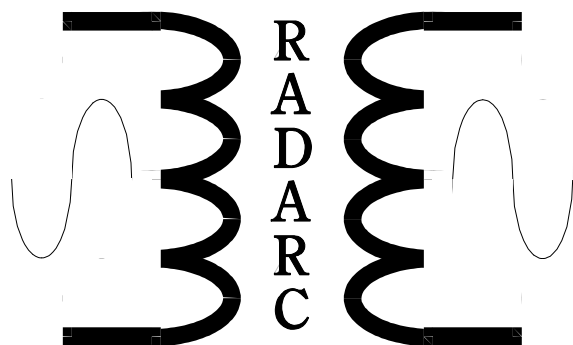
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# RADARC - INVENTORY OF CLUB EQUIPMENT & HARDWARE

\* Items for loan to Club Members after payment of a deposit, refundable on return of the item

# These items not in custody of G4JTR.

CATEGORY	ITEM
<b>ANTENNAS</b>	2m Beam # 70cm Beam x2 # 70cm matching harness for 2 Antennas* “ “ “ “ 4 “ * 2m & 70cm X50 Collinear#
<b>TEST EQUIPMENT</b>	MFJ SWR Bridge* REVEX SWR and Power Meter 2m & 70cm* MFJ Antenna Analyser* Optoelectronics Frequency Counter* AKD EMC Filter Kit* Hitachi Dual Beam 40 MHz Oscilloscope*
<b>MORSE CODE</b>	Datong Morse Tutor* Maplin Morse Oscillator*
<b>TX/RX EQUIPMENT</b>	YUASU FT221R 2m Multi-Mode Tranceiver* Lowe HF-225 HF Receiver* Lowe HF-150 HF Receiver* YUASU FT200 6 band HF SSB / CW Tranceiver*
<b>HARDWARE &amp; CONTEST EQUIPMENT</b>	YUASU FL2000 HF Linear Amp.* Talk/playback memory Speech Keyer* Tent # 2 x Club Banners # Petrol Generator # Diesel Generator # Tables, masts, guys, coax, # Pie Box of fittings #

## MIKE 4 TANGO CONTEST

During the weekend of 29/31 January, the Reading and District ARC aired their new contest call sign M4T for the first time. It was not on the same scale as M day (when we first aired MX0AAA) but it still had the same excitement!

The first contest we entered was CQWW 160 Metres CW.

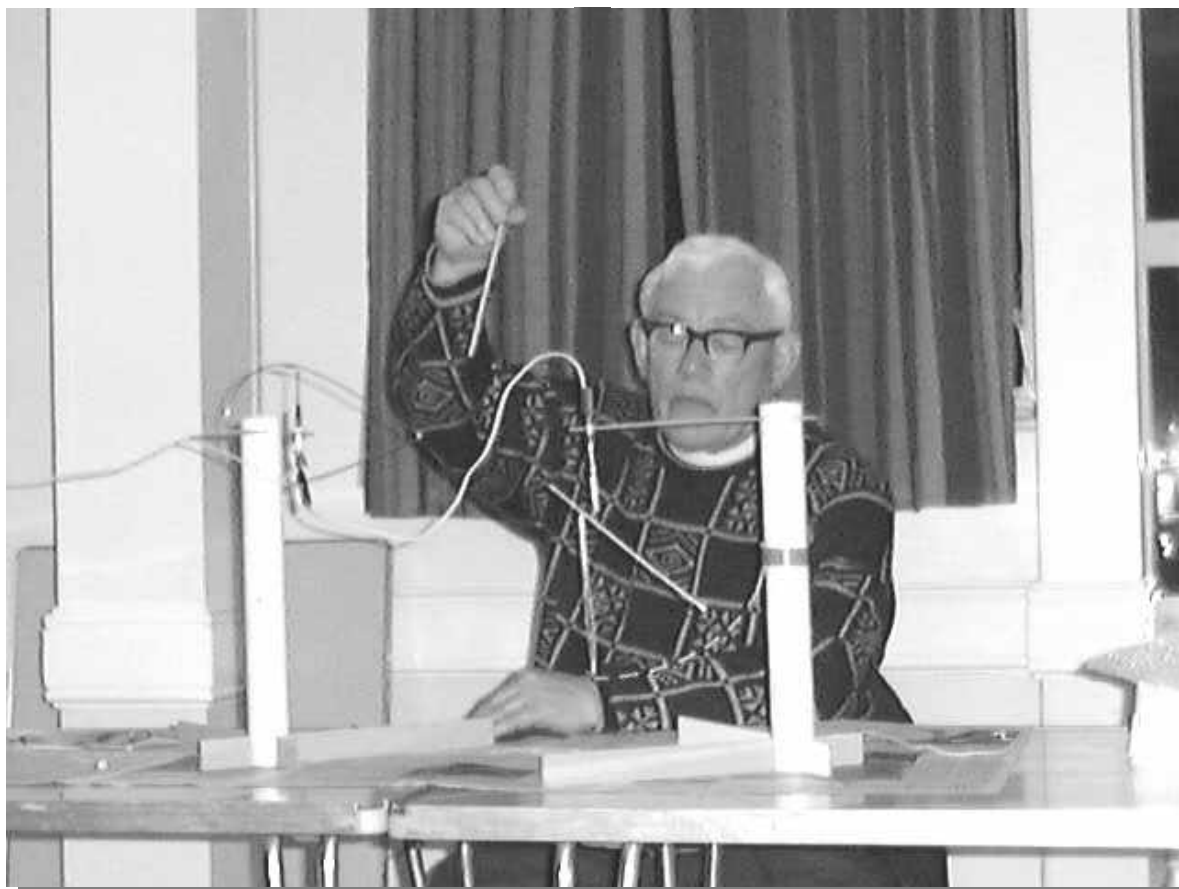
I thought it would be a good idea to use QRP until I found that many of the stations could not hear me. Top band is a difficult band for QRP at

the best of times, and I worked only 3 stations in the first half an hour so I decided to run the full 100 watts. Even though we only spent about 8 hours over the weekend in CQWW 160 metres we still worked 215 stations, 30 of which were in different countries.

For the ARRL DX CW contest I could not change the main station address in time so I had to use my own G0VQR call.

The next contest was CQWW 160 SSB.

As most of you know SSB is not my favourite mode, I only had a fist mike which made computer logging



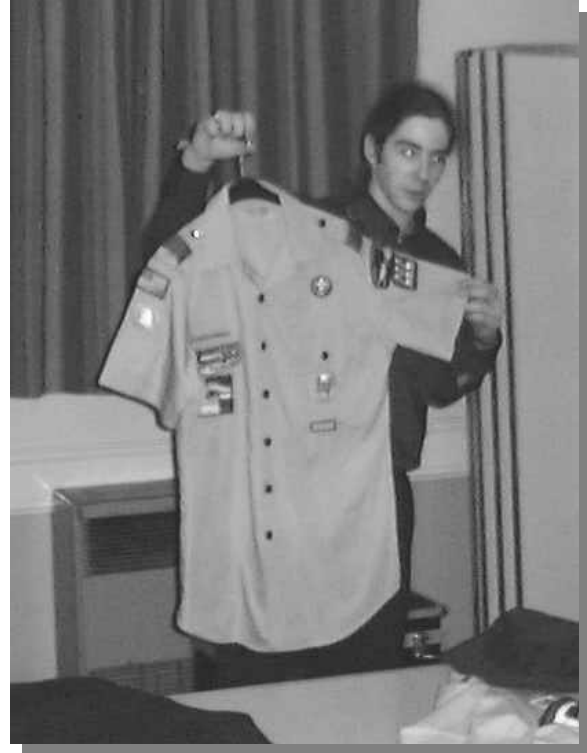
difficult, so after about 30 contacts I decided to retire from the contest. I felt it was now time to treat myself to a Heil Pro head set and foot control PTT ready for the next SSB contest.

The ARRL DX SSB contest was next, and the only chance I had to enter the contest was on the Sunday evening about 5 hours before it finished. However with the help of the hands free operation from the foot ptt, I managed to work 90 stations. 18 states were contacted on 15m, 16 on 20m, 7 on 10m, and 2 on 80m in the USA. The two stations on 80m were the best contacts for me as it was the first time I had worked the USA on this frequency.

I plan to enter more contests using the M4T call this year.

The main contest this year will be CQWW SSB in October, which will be at Windsor Hall, Reading University. (*The big 7-storey tower block on the University Campus which is visible from Upper Redlands Road – Ed*) We will be using the FT1000MP, running 100 watts and a full size G5RV at a height of about 100 feet. Please contact me if you are interested in operating or helping

Tom Cannon G0VQR



## CLUB NEWS & EVENTS

If you haven't been to all the club meetings since the start of the year, you'll have missed the following events...

### 28<sup>th</sup> January

A talk by Graham, a director of Pro-Bel on the new digital television systems - complete with a demonstration.

### 11th February

Ben, M0BIY (pictured above holding one of his Jamboree shirts) describing what he did at the World Scout Jamboree ... and the things he did on the way there across several different countries in South America.

### 11th March

The 1999 Spring Junk sale. Lots to buy, and of course the usual "bonus items".



### **8th April**

Paul, G3BGL giving his excellent talk on static electricity. He is pictured on the front cover with his home-made electroscope at a potential of around 3kV.

He started the evening by announcing that he needed a ground plane ... and covered the table with a couple of sheets of newspaper. He then made a circuit out of a 10 kV PSU, a piece of dry string and a ping-pong ball covered in graphite. The newspaper served its purpose by forming the return path for the circuit!

## **COMING UP:**

The Christian Aid Walk on **Saturday**

18

**22<sup>nd</sup> May.** Help is needed to provided communications between check-points so that none of the walkers get lost. We also need you for the 1999 McMichael Rally on **Sunday 18<sup>th</sup> July.** The Club receives income from the rally in return for providing its share of the labour. Please support this event by helping out – see Min for details. By way of reward, you receive free entry to the rally.

Details of these events, and more on the back page.

### **Finally – a warning:**

If you *still* believe that Reading's new dialling code is "01189" - watch out for the new (0118) 37x xxxx numbers which have been released by OfTel. The "9" belongs on your old 6-figure number, and not the 0118 STD code!

May 1999

**RADIO**

# McMichael '99

16th Amateur Radio Rally and Car Boot Sale

Sunday July 18th

<http://come.to/mmr99>

The Haymill Youth and Community Centre  
112 Burnham Lane, Slough.  
Open at 10.00am

Trade Stands  
in two halls

Large Car-Boot Area

Free Parking on Site

Food, Tea & Coffee

Licensed Bar

Further Information Contact  
Dave Chislett G4XDU  
01628 625720  
Email: [g4xdu@amsat.org](mailto:g4xdu@amsat.org)

Trade Inquiries & Bookings  
Min Standen G0JMS  
0118 972 3504  
[minds@mstanden.freemove.co.uk](mailto:minds@mstanden.freemove.co.uk)

Admission: £1.50

Car Boot Sale: £10 per Pitch on the Day  
Setup from 7.00Hrs

Meetings in **BOLD** are at the Pavilion, Woodford Park, Woodley, at 2000hrs.  
 Events in *italics* are NOT at the Pavilion. The Club Meets on the second  
 Thursday of each month.

DATE	MEETING / EVENT / ACTIVITY	DETAILS
<b>THURSDAY 13 May</b>	<b>On the Air Evening</b> - We will put up a mast with a 3 element trap dipole for 20/15/10 metres and see who we can work	G0LGG
Sunday 23 <sup>rd</sup> May	<i>Christian Aid Walk- The club provides Radio Communications for the walk, a fun morning/early afternoon on 2 Metres Mobiles and Handhelds</i>	
Weekend 5 June- 6 June	<i>RSGB HF National Field Day - Annual CW Contest – Are the QRP crew going to do it again?</i>	G0LHZ
<b>THURSDAY 10 June</b>	<b>WW II Radio</b> – A talk by Richard Walker G4PRI about the radios used in World War II	G0LHZ
Weekend 3 July- 4 July	<i>RSGB VHF National Field Day - Annual VHF Field Day Contest – Do any club members want to put a station on?</i>	G0LHZ
<b>THURSDAY 8 July</b>	<b>Desert Island Radio</b> – It's that time again to pit your electronic skills against the others – what will we build this year?	G0LHZ
Sunday 18 <sup>th</sup> July	<i>McMichael Rally – Held in Burnham, joint venture with other radio clubs. This is the clubs premier fund raising venture – a good day out with old friends and many bargains in the boot sale</i>	
<b>THURSDAY 12 August</b>	To Be Advised	G0LHZ
<b>THURSDAY 9 September</b>	Modern Military HF Radios – A talk by Mike G8MOB (Provisional)	G0LGG
<b>THURSDAY 14 October</b>	To Be Advised	1999
<b>THURSDAY 11 November</b>	To Be Advised	1999
<b>THURSDAY 9<sup>th</sup> December 1999</b>	<b>Annual General Meeting</b> – Time to elect the year 2000 committee, and of course <b>FREE</b> Cheese and Beer for members	1999
Saturday 1 <sup>st</sup> January 2000	<b><i>How will the club mark the last year of the current millennium ?</i></b>	2000
<b>THURSDAY 13<sup>th</sup> January 2000</b>	<b>2000 - the year ahead</b>	2000