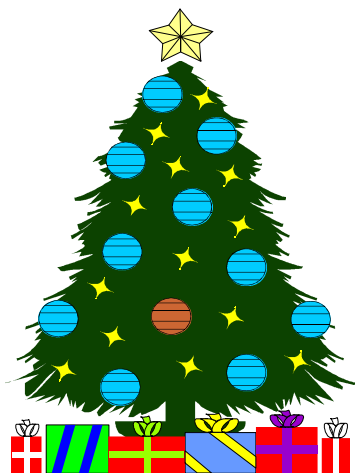




*The Journal of the
Reading and
District Amateur
Radio Club*

Winter 1998

**Price: £2
Free to RADARC
Members**



RADIO Winter 1998

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Enquiries about the production and distribution of this newsletter can be addressed to G8FIF or any of the committee.

Club Member's email addresses are formed as follows: <callsign>@radarc.org

Editorial

Hello, and welcome to another packed edition of *RADIO*. It seems that I managed to ruin Nick's little "quiz" in the last one by putting the answer in myself.

Mind you, I wasn't completely right in my bit about leap years. Everything I said was true, but apparently our wonderful Gregorian Calendar still has an imperfection – everything runs too fast and goes out of sync by 6 days every 10,000 years. I guess that not too many people are going to worry about that one, although I have seen a Web site which proposes halting all clocks for 48 hours beginning at 23:59:59 31/12/1999 for two purposes. The first to make the adjustment I've just mentioned, and the other to give us plenty of time for partying and general merriment!

Since the last magazine I've

managed to change jobs – although I seem to be getting closer and closer to home over the years. This time it's only 2 miles door to door (before then it was twice that!) What it does mean though, is that I may be the other end of the country – or even in a different one – on a club night.

"Editor's Annual Report"

The newsletter never gets any easier to publish. Nick, GOLGG and I started discussing this one way back in September, and I'd started to create the layout on the Publisher package at the end of August. Having said that, most of the articles (ignoring those from Nick & I) have arrived in the last 2 weeks before we went to press – 28/29th November.

I, like all the various editors over the years, have to bite my tongue when somebody collars me to ask when the next edition will be published, but they've never

got anything to put in it!

For next year, how would you like the magazine to change – if at all? In terms of frequency of publication, I refer you to the paragraph above. However, if it's content, I am sure that with the wide variety of members in the club we could put together a small series on virtually any electronics-based topic you could think of. I'll suggest one, and if somebody asks me to do it, look out for the articles next year!

My *forte* is digital electronics and microcontrollers. So if you'd like a series on how you could use simple microprocessors to do menial jobs in the shack you only have to say. (I could even feel a Club project developing from this one)

One little thing before I finish – does anyone know why the magazine is called *RADIO*? I was told an explanation by a committee

member when I first joined the club in 1987 (and I presume it was true then...) I'll give you a clue: it is an abbreviation and contains neither of the words "amateur" or "radio".

With that, I will wish you a Merry Christmas, and prosperous 1999. Only one year to plan how to celebrate the year 2000 ... and two to prepare for the new millennium.

73, Des G8FIF.

Chairman's Review of 1998

The year started with a survey trying to establish the members interests. A copy of the results can be found in this issue.

Perhaps the problem with our hobby is that there are so many possible activities that

it is difficult to give justice to all.

The Committee has tried to cover as many topics as possible this year with talks at almost every meeting. If you look at the proposed schedule for next year many of the outstanding topics, suggested by the survey, will be covered.

The talks have covered a wide range of topics with many live demonstrations. There were so many good talks that it is difficult to single out a specific one as being the highlight of the year. The demonstration by G1HBD on ATV certainly kindled some interest with the members. This years desert island radio, a 1750Hz oscillator, certainly was enjoyed by those who attended judging by the cheer that went up when SN was activated.

Several club members took part in contests this year. We had an entry for the QRP section of the NFD this year

and took part in two AFS contests.

Special event stations were operated at the University and we participated in the Woodford Park open day.

Ten members visited Bletchley Park in October. A really interesting visit that was enjoyed by all so much so that it will probably be repeated in 1999.

We are always interested in your suggestions for talks and visits. Please give your suggestion to any member of the committee.

At the start of the year, your committee felt that the subscriptions were getting too high. Several economies were considered in a effort to reduce them.

During the year, we reduced the number of meetings at the club to one per month with the club net operating at other time. Contest planning meetings were move to alternative venue within the

Pavilion.

Reducing the number of meeting has two effects. Firstly it reduces room hire costs and secondly reduced the workload on the committee. Concentrating on 12 good meetings is better than just filling time with 23.

The clubroom was booked from 20:00 to 22:00 although meetings tend to go beyond the finishing time. This change alone has reduced the room hire charges significantly.

As you can see from the enclosed accounts, the club is in a healthy position. This position was helped considerably by McMichael and two junk sales.

The subscriptions for 1999 will reflect the above changes and will be set at just £10.

My thanks to my associates on the committee and all those who have supported the club activities. I look forward

to another interesting year in 1999

G0LGG

1999 Committee

Three members of this years committee will be retiring - G0TKV, G6ZTZ and G0MZN. I would like to thank them all for their support in 1998 and hope to see them all at future meetings.

The committee for 1999 will be the following:

Chairman - G0LGG

Secretary - G0LHZ

Treasurer - G0JMS

News letter Editor - G8FIF

Ordinary member - G0VQR

Ordinary member - G8FRC

G4JTR will continue to look after the club library and equipment.

Secretary's Scribble

Well it is nice to see the solar flux above the 100 mark (it's 135 today) and the DX rolling in. The only difficulty is working the DX, it seems that my 100 watts is lost in the pile up 99 times out of 100. Still if it was easy.....

Hopefully as the solar cycle rolls on the flux level should get higher and the higher bands will be open longer giving all us HF freaks opportunities to work exotic lands. The answer to the question is of course "more metal in the air".

As well as club secretary I am also the contest equipment keeper. It is rather sad to see the club equipment so little used. Please remember that as members you are entitled to borrow the contest equipment even if it just to take it off for a fun weekend somewhere. In my garage there are 2 metre and

70 cm aerials, a 3 element 3 band (28/21/14 MHz) trap dipole, three generators, cables and lots of poles just waiting to be used.

I had fun in the Club calls contest last weekend. The contest was on 160 metres SSB or CW for 3 hours on a Saturday evening. The idea was to work other club members as well as members of your own club. You get extra points for working the nominated club station (one per club). Vin G4JTR was running the RADARC nominated station and was using M0AAA as the club callsign.

I do not operate very often on 160 metres as I do not have an effective antenna for top band. So I erected a "midnight special" as it got dark on Saturday evening. It was Vin G4JTR who gave me the idea. I have a 40 metre inverted V antenna the apex of which is suspended from the top of my TV aerial mast, one leg is tied off in a bush in the front garden and

the other leg is tied to a small tree in the back garden.

I added another 30 metres of wire to each end and draped it around the front and back garden to make a resonant dipole on top band. Its called a midnight special because I had to go out after the contest finished (actually at 23:00) and remove the extra wire before the morning so that the neighbours did not see it all round the front garden.

Still it loaded up all right and seemed to get out. First station I worked was GM4RIV - boy was he loud. I managed to work the following club members (in log order) Vin - M0AAA, Don G3XTT, Cliff G4PZP, Tony G0OPB, and Tom G0VQR. In all I worked 39 stations. Most were on SSB but Tony G0OPB and Tom G0VQR were on CW.

I was not expecting to work any CW, but when I heard Tony I decided to go back to him to get the points. During

the QSO my logbook fell on the floor (panic) at the point where you send 599 serial number. When I went to send the serial number my mind froze (too busy watching the logbook crash to the floor) and I could not remember the next serial number!.

There was a long pause while I frantically picked up the book and turned the pages looking for the log and serial number. This episode completely put me off and my morse went to pieces - I felt sorry for Tony who was having to be patient throughout this episode. In my mind I could hear him frowning and saying "*come on come on there is a contest on you know*". Sorry Tony.

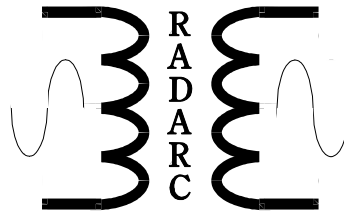
So what is RADARC going to do contest wise next year? The interest in contests has waned over the years but they can be fun and we do not have to make serious entries, the idea is to have fun. We have been entering the QRP section of HF NFD

for the last few years - should we give that up and go into the restricted section, generators and all?.

The club also has some money to spend - after all we should do something with our cash mountain. One of the perennial problems with any contest or any special event station is that of erecting aerials. Although we have poles and ropes and guys it is all a bit mandraulic.

I would like to see the club come into the 20th century (before it is over) and invest in some sort of mobile tower. Just a small one that would make hoisting a 3 element HF tri-bander to 10 metres (HF NFD maximum height) easier than it is now. Does anybody out there agree? Does anybody out here disagree?

Well I look forward to meeting you all again before Christmas at the AGM - no doubt there will be the usual lively discussion during the cheese and wine/beer part. If



I do not meet you before Christmas, then Merry Christmas and Happy New Year.

Lastly I would like to thank the other committee members and the RADARC members for all their help and support during 1998. Good DX!

Cheers and Beers

Jim - G0LHZ Secretary

Hi all,

Well what they say about retirement is true. You do not know how you find the time to do what you used to do. Hence I am not standing again for the position of Ordinary Member. Not that I did not enjoy it, or found it too challenging. Just purely lack of time. I am already on another committee and still have a long list of chores to catch up on.

I would like to say thanks to the really hard working bunch of chaps staying on. They are a credit to the club, as they work very hard for the members. The position of Ordinary Member is not too demanding and is fun.

I will still always be ready to serve the club still, if called.

Most of the team I worked for are still standing and you could not find a better bunch of people to run your club, so if anyone could see their way to filling my place, I can tell you won't be disappointed.

Nick, Chairman said we need good speakers and to do what the members want and this would bring the members in. Peter Chadwick, our last speaker was an excellent example of this and I am sure that most of those who attended this meeting really enjoyed the talk he gave on *Linears*. What a knowledgeable and interesting chap. I thoroughly enjoyed that evening and Peter's talk.

I would like to say It is your club and there is a wealth of expertise within the club and some really good fellowship to be had. Please don't be shy and tear yourself away from TV once in a while and you will be surprised what you can learn and enjoy. Don't worry about making conversation. There are plenty of us there to introduce you to other members. Just make the effort and introduce yourself. We will do the rest.

I would also like to say a big thank you all those within the club who gave up their time,

whether it be Tony G1HBD, who gave us that excellent TV evening, or any of members who kindly gave up their time on behalf of the club. Thank you to you all out there.

Dave Self G0TKV
Ordinary Member.

McMichael Radio Rally 1998

It now seems quite a while since the rally was held back in July!

Once again we seem to have been lucky with the weather to such an extent that we managed to exceed the number of attendees from last year and that the site car park was full by about 10:30 a.m. and the local car parks full by 11:00 a.m.!

With many Rallies and Meetings failing to operate

and being cancelled at the last minute in 1998 the McMichael Radio Rally was a success with numbers attending reaching the peak of several years ago.

The Rally is not just the place to buy that new radio or the odd component; but a social event where friends can meet may be for the first time after chatting on the air for years and putting faces to voices.

(Min)

The financial aspects: Each organising club acquired £350 for its efforts with local BBS and Local Repeaters benefiting.

The RADARC Club Table manned by Peter G4JNU, Ian G8NXJ, Keith G0TKV, Min G0JMS and others brought a fantastic amount of £193.60. (Who said that old junk was not worth anything.)

It is on that note that both of us would like to extend a big thank you to all that helped

out and did much more than their allotted times.

Peter G8FRC (*Rally traffic Control*) & Min G0JMS (*Rally Bookings*), Rally Committee.

- Jim G0LHZ
- Vin G4JTR
- Peter G4JNU
- Nick G0LLG
- Bob G4ELY
- Chris M1CYE
- Simon G6ZTZ
- Denis G4KWT
- Dave G0TKV
- Keith G0XTV
- Des G8FIF
- Des' XYL Sue
- Jack G0LIE
- Ian G8NXJ
- Harry G2DSB
- Don G3XTT
- Edward G3XTT's junior,
- Tom G0VQR
- Alan G7UZY

(Peter)
I think it was a very successful day.

However, as in many things, there is room for

improvements, so what do you think, how can we make next years event even better?

Was there anything missing? Is there anything we should leave out? Please let me know. (at the club or Email Min)

A thought provoking note: I think it is true to say that a computer fair is held every month at Bracknell Sports and Leisure Centre, our Radio Rally is held once a year! If you want computer bits where are you most likely to go?

Now that the club meetings have been reduced to one a month the job of collecting names to help next year will be a little bit more difficult; so I would appreciate that if you can commit yourself to helping on the day.

Please let me know as soon as possible, ideally with times, anywhere between 6 o'clock in the morning until about 3 or 4 in the afternoon!

(Both)

We did volunteer to be the clubs representative for the 1999 rally; all the other regional clubs reps, chairman, treasurer and bookings secretary stood for re-election. **Mugs!**

So, as this will be published in the end of year newsletter, let us take the opportunity to wish you all and your families a Happy Christmas and a prosperous New Year.

Put this in your 1999 Diary - Sunday 18th. July.

Regards
Pete Milton G8FRC. & Min
Standen G0JMS
Email: G0JMS@radarc.org

BBC Thames Valley Radio competition

I mentioned at the last meeting that there would be something about Amateur Radio on BBC Radio TVFM the following Saturday.

On November 14th I was involved with a competition run every Saturday morning on BBC Radio TVFM. It was a competition to guess a hobby given a few clues.

The questions were organised the day before but I really did not have a clue as to what would happen. In the end, it was quite simple. I was called at about 09:15 and patched in to the program. Then at 09:20, the live interview began.

Andrew Peach asked me the prearranged questions about the hobby without giving the game away.

He asked if I do this occasionally in a field or whether this was done in a

group or on your own. Was it done all over the world and how many people do this locally and internationally. Finally do some people travel to far corners of the world to do this.

The answers received were interesting to say the least

The suggestions from the phone-in were as follows:

- James - Birdwatcher
 - Hillary - builds rockets
 - Joan - Corn Dolls
 - Ann - Astrology
 - John - Star Gazing
 - Vera - Artist
 - Catrina - Photographer
-
- **Keith from Wokingham - Radio Amateur**

So Keith, from Wokingham got it right. He said he used to live next door to a Radio Amateur ... poor chap!

I did ask the BBC to put out our web address but they are not allowed to do this. Their

answer was that they found our site easily so listeners should not have a problem finding us. Our web site worked for us again and I notice that the number of hits is increasing considerably.

It is becoming common to mention web sites during QSOs. I have received a few QSL cards via the Internet, which is a lot faster than the bureau. I usually refer them to www.radarc.org where they will find club members e-mail addresses where applicable.

G0LGG

*When a YM
becomes an XYM -
GOPUB got married
and now tells all*

I'm sure I just asked her if she wanted a cup of tea that fateful Saturday morning in

March 1997. Well she agreed to marry me and that meant her taking on all my odd hobbies, and I suppose, me on her.

Pauline (my wife) was used to me disappearing for weekends with my friends; if it wasn't a weekend at field day with the amateur radio club it would be a weekend kayaking on a rough river with my mates; if it wasn't that, it would be organising something or other with the Scouts; if it wasn't that then it was something else. She of course accepted all of this.

I met Pauline through the Scouts; she was (and still is) a Leader - she was walking the Three Towers Hike four years ago - she was one of the last teams and I happened to be sweeping the end of the hike with my 2-metre hand-held. Those from the club will probably remember her as the one that raised concern about her health - Jim GOLHZ was frantically worried and wanted an ambulance. Pauline was fine.

One of my numerous stag nights took place at Easter this year with a lads' weekend to a foreign country. DX it may not be but the delights of the tulip-laden low countries are renown throughout the world, and the Dutch apple's night-life is certainly an eye-opener for the uninitiated.

On board for a five day trip which involved hiking up and down dozens of canals and tram-tracks and visiting numerous bars that sell the world's finest cappuccinos, were Paul G0VKT (my best man), Eddie 2E1BDO, Craig 2E1BZG, Martin G7TZE and my brother Nick. The six of us found a cheap budget hotel 5 minutes walk from Centraal Station which enabled us to return to safety and sanctity after trawling the rouge illuminations. After midnight the dark alleys of the Oudezijds area not the place to be when you're on your own, let alone as a group of six.

The wedding took place at St. Peters Church in Earley. Paul said I was really nervous. This was a big step in my life; did I really want to commit, after all, the catch phrase of a few years ago was *no commitment*. Well I said 'I do' and so did Pauline and we all lived happily ever after.

The reception afterwards took place in Sonning and there were nearly 100 people there. Counting callsigns - or people who have been licensed at some point - there were eleven: G0PUB, G0VKT, G7TZE, 2E1BDO, 2E1BZG, M0BIY, G7AAQ, G0BKR, G7AOK, G7DZT and G7UEI.

Pauline and I spent our honeymoon in TF-land (that's Iceland for those who haven't got a callsign prefix map). We climbed glaciers, went rafting, whale watching, horse riding, hot pooling and saw huge amounts of fascinating scenery. For those of you trying to choose a holiday destination, Iceland

is well worth considering for a visit. We drove right across the centre in a Nissan Micra on a gravel dirt track. It took 11 hours to do 300km on a road that's worse than the track up to the top of Watership Down.

Well married life continues to bring its rewards though I'm not as active on the radio as I'd like. I'm going to sell all my radios in the near future and possibly buy a new box. The FT-847 looks interesting. So, if anyone has an interest in any of the following, please call me: FT-980 (all HF bands with out-of-band transmit mod, technical manual etc, 100W); FT-790 (70cm SSB/FM/1W); FT-690 (6m SSB/FM/3W); 144-50MHz transverter (40W); PK-88 packet modem; 386 PC; Sensible offers please - 0370 354053 or 01635 847865.

1998 Survey Results

A survey was carried out at the start of the year in order to gauge interests and point the committee in the right direction.

Items in bold were covered in 1998, and those with an * will be covered in the 1999 program.

BANDS

VHF	6.0
HF	4.9
UHF	3.8
6m	1.9
Microwave	1.6

MODES

FM	7.2
SSB	4.6
Fast Scan TV	3.3
Packet	2.9
CW	2.5
Satellite	2.0
QRP	1.9
Slow Scan TV	1.8
Packet	1.3
RTTY	1.1
Amor	1.0

FAVOURITE ACTIVITY

Rag chew	5.8
Mobile	5.0
DX	4.2

TOPICS OF INTEREST

Antennas	6.8
Junk sales	5.6
On-air nights	5.1
Computers	5.1
Digital Radio	4.6
WWII Radio	4.5*
Propagation	4.4
Desert Radio	4.4
Linears	4.4
Alignment	4.3
Repeaters	4.2*
Radio Astronomy	4.1
TV History	4.0
Construction	4.0
Radar History	3.8
Digital TV	3.8*
TVI	3.5
IOTA	3.4
Radar	3.2
Dxpeditons	3.1
Radio history	3.3
Weafax	2.5
CROW	2.5
EME	2.1
WAB	2.0
Morse class	1.3
Beacons	1.2
Raynet	0.9

SUPPORT

McMichael Rally	7.1
Special Event	5.7
Field Days	4.2
Newsletter	4.1
Club Net	3.4
Three Towers	3.3
Booze Cruise	3.3
Foxhunts	2.7
Christian Aid Walk	2.3
Quiz	1.8
DF	1.9
Mills on the Air	1.5

CONTESTS

AFS -home	3.6
HFNFD-SSB	3.3
CQWW	3.2
VHFNFD	3.0
HFNFD-CW	2.8

***Our visit to
Bletchley Park.***

The name of 'Bletchley Park' to a lot of people conjures up the image of a quiet country house, perhaps even a mansion, somewhere in the shires with a fairly large open

space, lots of trees, some horses, and maybe a boating lake. -- That is exactly what it is -- now ! a large mansion set in 55 acres of beautiful grounds, situated in the country near to the new town of Milton Keynes in North Buckinghamshire.

... but things were a bit different during the dark days preceding and during the second World War. At some time during the 1930's in Westminster some members of the Cabinet could see the trouble growing in Europe and the great possibility of Britain being brought into conflict with Germany. History has proven them to be correct.

During this period it was considered necessary to find out as much as possible about the actions of the German troops who were being mobilised in large numbers on land, sea, and in the air. It was obvious that if we didn't want to be caught with our pants down something would have to be

done to follow the movements and numbers of personnel involved as they blatantly moved around, putting pressure on neighbouring countries. It was well known that the Germans were well advanced in radio techniques and in communications. At this stage there was not much importance given to any sort of encryption, most secret communications were sent over landlines or by courier. Someone over this side became suspicious and managed to persuade the government to take steps to monitor the radio transmissions that were passed between the various units. In May 1938 Bletchley Park had been purchased by the government from the then owners Sir Herbert and Fanny Leon, and within a couple of months the quiet country mansion was transformed into the Government Code and Cipher School (GC&CS) and it became a very secret place. So secret that just about no-one in the surrounding area

knew what was going on - 'in the park'. There must have been plenty of scope for enquiry, because in a very short time a lot of wooden huts had been erected in the grounds, and the to-ing and fro-ing of the contractors vehicles must have drawn attention to 'something unusual happening'.

By the time war broke out on Sept. 3rd 1939, the park was in full swing monitoring and decoding the now encrypted messages being used by the Germans, and to do this job many excellent mathematicians and cryptoanalysts had been recruited. The later success story of the breaking of the Enigma codes has been well documented elsewhere but only released to the general public in the last few years. It is now possible to get an insight of this truly magnificent achievement 'where it happened'.

Sunday 4th October saw a group of RADARC members

arrive at Woodford Park car park for an early start to a very interesting day at Bletchley park. What route? and who was going with who and more important who was following who !! The two car loads got under way arriving safely. We all headed for the Mansion.

This was the first time I had been inside the building. One room of the house has been turned into a canteen and on the ground floor other rooms are used as a small part of the museum, various section of which are scattered around the grounds. The rest of the house remains private as far as we could see. Our conducted tour was scheduled to start around mid-day, so we all headed to the NAFFI cafe for the first cup of coffee of the day for some and the umpteenth for others. Refreshed we all entered the library to await our tour guide. The oak panelling around the room is absolutely beautiful, and the ornate ceiling plus the general decor showed how wonderful this place must

have been in its heyday. Our guide mentioned that the previous owner liked the woodwork so much that before he moved out he had all the oak panels taken out and put into storage so that they could be put into a proposed new mansion that he was hoping to build nearer to the lake. This did not meet with the approval of the new owners. (H. M. Government,) who had all the panels replaced in their original locations. Our guide went on to give a brief history of the park and the difficulties in maintaining the buildings and grounds with only subscriptions and entrance fees as the main source of revenue. Applications to the National Lottery Heritage Fund and the Millennium Fund for a grant have both failed. Let us hope that one day before it is too late some way of preserving the park can be found, -- let's face it -- without Bletchley Park there might not be a National Lottery Fund or Millennium Fund !!!

Before long we were on a conducted tour 'out the back' of the mansion, where we were shown various sites of importance. Although perhaps not in strict order we were shown some of the places that bore the names of greater significance. For example, the whole of Bletchley Park bears the glorious name of STATION X, but it turns out that the original Station X was no more than a room, little bigger than a broom cupboard, perched at the top of a tower like structure, and having less radio equipment than the average shack!

Our next stop was to one of the (now unused) entrances that was used mainly by workers in the park, and dispatch riders who brought their coded messages from the collection centre of the Radio Security Services (RSS) in Barnet, Herts. These coded messages had been intercepted by specialised men and women Radio Operators of the "Y"

Service. These operators came from the three services as well as many civilians, including many Radio Amateurs who suddenly found themselves, (already able to handle a Morse key, therefore partly trained,) being posted to monitoring stations in various parts of the country, usually situated well away from industrial QRN, and quite often running from their own generators. This kept the noise down to a low level, and the chances of long power failures was kept to a minimum.

These Special Operators of "Y" Group had to have quite a lot of training because, unlike most Radio Operators who could ask for repeats, the "Y" op's had only one bite of the cherry, so accuracy at high speeds was essential. These coded messages were quickly transferred to 'Hut 4' for the first stage of processing. The success of Bletchley Park relied upon -- knowing your job, but not knowing your

neighbours !. One story claims that a couple had been married for over 40 years before they found out that both had worked at the park during the war !!! I'm not sure that I believe it, but such was the dedication to secrecy. [I worked for the firm myself, and had to go on a guided tour before I found out what I was doing !] Our enemies never even knew of the existence of Station X, but it was actually bombed during the latter part of the war. To say 'bombed' is a bit of an exaggeration. What really happened was, an enemy bomber dropped a 'string' of bombs, some say they were trying to bomb the railway sidings at Bletchley, others think the bombs were jettisoned, however two bombs fell inside the perimeter fence of the park,-- - just !! One exploded between the entrance mentioned above and Hut 4 also mentioned above. This did no structural damage apart from creating a small clearing in the woods (it's still there) and sending up the

laundry bill of the occupants of Hut 4 !!. The other bomb was heard to hit the ground but did not explode. (that's also still there -- somewhere)

Our next stop was to one of the museum exhibits in the shape of models shown by a couple of modelling clubs. This was only a brief stop on our way to the stable yard. In the stable yard we were shown the room at the top of Cottage Nr.3 where the great Alan Turing did most of his mathematical calculations in relative peace and quiet, and where he and Gordon Welchman designed the 'bombe'. At the other end of the stable yard was, of all things, a pigeon loft -- which was actually in use during the conflict, it was important enough to make the government issue a directive ordering all birds of prey within a wide radius to be shot so that the pigeons could have a fair chance of returning to their loft.

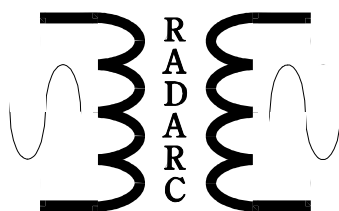
Our next stop was to the 'bombe' room. These bombes

were an electro-mechanical device of great complexity, that could work out calculations at a great speed, these were known generally as decrypters -- not as fast as a computer, (but remember, there is still only one computer in the world, and that's busy in another room.) To give some idea of the size of the problem, it was stated that the number of possible permutations from each daily setting of the Enigma code machine was about 75,000,000,000,000,000,000 or 75×10 to the power of 18, or was it even greater? I think the guide said 75 million, million, million, million, million, million, holding up a finger at each million. She ended with 6 fingers upward so I reckon that's 10 to the power of 36... This takes a bit of believing and I think the lower figure is

more correct. At the peak of activities there were 15 of these bombes operational at Bletchley, but others were made and sent to places like Gayhurst Park in North Buckinghamshire, and, Eastcote in Middlesex. They were very noisy in operation and the operators, mostly WRNS, could not speak to each other over the racket. Conditions must have been awful.

At various points our guide showed where messages from other theatres of war, such as Japan, and Italy were dealt with. Huts 3, 6 and 8, as well as Hut 4, mentioned earlier, consisted mainly of code breakers, such was the success of these people that nearly 6000 coded messages from Germany alone were decoded, translated, and evaluated -- every day !!.

This figure went up to a staggering 18,000 a day during the D-Day period. The only codes that did not get broken were some Italian Naval codes, and the German Gestapo codes.



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There does not appear to be any official figures for the number of people working there but various sources suggest that by the end of the war between 10,000 and 16,000 people were in the park on any one day. One source suggests there were over 12,000 people doing decoding and associated jobs alone, then there is all the admin staff, so even allowing for a rotation of shifts, there were a lot of people working there every day. Glad I didn't do the washing up !

That more or less ended the official tour, except to stop at a slab of concrete which was claimed to be the site of Colossus during its operational period. Later the remains of the original machine were dismantled and a replica has been rebuilt from the original drawings and parts, and is now sited and on view at its present location in the main museum, which was our next and final stop. Our guide gave us a final chat and advised us on

the best way to tour the museum, bade her farewells, and departed.

From here on it was up to the individual to browse the many interesting exhibits many of which belong to private collectors. The variety was endless and almost anything and everything relating to the wartime period was on display. It was pointed out to me that one wartime thing had been overlooked, -- there was no 6d a pint beer! (2 and a half pence to the uninitiated !!) We managed to find the Amateur Radio station GB2BP, and signed the visitors book. The station was in operation so a degree of care was taken not to disturb the operators. There was a contest of some sort going on.

Of course no visit to Bletchley Park would be complete if the Enigma section was missed or bypassed, and although I have seen the demonstration and film many times, it never

ceases to amaze me. To try to explain it successfully would take many more pages. My advice is to go and have a good look for yourself, it's well worth it.

Our day was rounded off by a short talk given by the curator and person in charge of the Colossus rebuild who filled in some of the missing mysteries of the beast, such as "how many were made ?" "how many valves ?" etc. The answers were - 11 in total made.--- most were smashed up after the war to protect the 'secret'. Colossus Nr.1 had 1500 valves, but later versions had up to 2000 valves, depending on the job they had to do. It is claimed the number of breakdowns from all these valves was extremely low. No actual figures have ever been made available. One story doing the rounds is about a challenge given to Colossus and a 486 computer. They were tasked to do a similar job to the wartime work of Colossus, and although much careful thought had been put

into the 486 program to make it comparable, the Colossus won. I'm not sure whether I believe it, but one thing is certain, the place is so full of magic... it could have happened.

The BBC have been filming for several weeks at the 'park' to make a documentary/drama and although scheduled for showing this 'autumn', I am now told that it will probably be spring 1999 before release. So keep your eyes peeled for the programme, it might even be a series, called STATION X, it will be on Ch.4.

By the time we all got back to our cars I think we were exhausted but buzzing with all the interesting things that we had seen. Our car load decided to have some refreshments before leaving. The first car had gone and we left 30 minutes later. As we went through the gates the driver said go to the end of the road then turn left. When we got there he said which way next? Silence ! So

we decided to go M1 M25 M40 as that seemed the best way. We headed for the M1 but ended up in Tesco's Warehouse car park !! Back on route we hit road works with no signs to get onto the motorway. 2 miles later we turned round and eventually got onto the M1 where the traffic was nearly at a standstill. Eventually we arrived back at Woodford Park at 6 o'clock. But a good time was had by all.

Eric Davies
G3PGM

So the Computer is Always Right?

*(an apt story to follow the
Bletchley Park / Colossus
article?)*

In March 1997 a man living in Windsor received a bill for his as yet unused credit card stating that he owed £0.00. He ignored it and threw it away.

In April he received another and threw that one away too. The following month the credit card company sent him a very nasty note stating they were going to cancel his card if he didn't send them £0.00 by return of post. He called them, talked to them, they said it was a computer error and told him they'd take care of it.

The following month he decided that it was about time that he tried out the troublesome credit card figuring that if there were purchases on his account it would put an end to his ridiculous predicament. However, in the first store that he produced his credit card in payment for his purchases he found that his card had been cancelled.

He called the credit card company who apologised for the computer error once again and said that they would take care of it. The next day he got a bill for £0.00 stating that payment was now overdue. Assuming that having spoken to the credit card company only the previous day the latest bill was yet another mistake he ignored it, trusting that the company would be as good as their word and sort the problem out.

The next month he got a bill for £0.00 stating that he had 10 days to pay his account or the company would have to take steps to recover the

debt. Finally giving in he thought he would play the company at their own game and mailed them a cheque for £0.00. The computer duly processed his account and returned a statement to the effect that he now owed the credit card company nothing at all.

A week later, the man's bank called him asking him what he was doing writing a cheque for £0.00. After a lengthy explanation the bank replied that the £0.00 cheque had caused their cheque processing software to fail. The bank could not now process ANY cheques from ANY of their customers that day because the cheque for £0.00 was causing the computer to crash.

The following month the man received a letter from the credit card company claiming that his cheque had bounced and that he now owed them £0.00 and unless he sent a cheque by return of post they would be taking steps to

recover the debt. The man, who had been considering buying his wife a computer for her birthday, bought her a typewriter instead

It takes a lot to become an Amateur operator - I vote for change!

We have an unusual hobby with such a variety of possible activities its almost mind blowing

Sstv, Atv, ssb, cw, amtor, pactor, RTTY, satellites, repeaters, microwaves moon bounce, contests, club meetings, club visits, technology talks, fox hunts, direction finding - the list is almost endless.

In business, it is important not to allow the product list to get too long particularly if

they serve multiple markets. You end up with little focus on any specific activity and poor results. We have this problem - How do we market a hobby with so many different products available to everyone.

Another consideration is what it takes to become an operator. Study for a year and pass exams, that will allow you on to bands above 50MHz. Then study some more and learn CW and you get to use the HF bands.

Compare this with virtually any other hobby - no exams, just sign up.

There has been a lot of talk about a codeless license and I, for one, am in favour. I would even go as far as making the 2M band available for operators without a formal examination. Clubs could play an active roll here in training new operators prior to them issuing a special 2M licence. Peer pressure should ensure that the correct

procedures are used. This license could be provisional allowing operating while studying for a formal exam.

This would certainly introduce people to the joys of our hobby after a very short period. Remember too that there is a significant commitment in terms of the expense of hardware.

I can hear shouts of dismay but try tuning through the 2M band and note the activity - would it really matter if a few new people were heard especially now we have 12.5kHz-channel spacing.

G0LGG

Hobby needs to become hi-tech

Many years ago communication technology was lead by amateur operators. In recent years we have dropped behind and have not taken advantage of the new tools that are available today.

There are many competitive communication systems available today. Many of the techniques employed could be applied to our hobby.

Why are we not exploring the packet network using our web browsers, why is the speed so slow. Why are we not enjoying crystal clear communications, why can we not call another station digitally rather than attempt a connection by calling CQ.

Present day technology has the answer to many of the questions raised, it just takes some enthusiastic amateurs to try and implement them.

Mobile phones for example efficiently use band space and you can communicate readily and easily. Could some of there techniques be applied to our repeater network for example? The band plan for repeaters allocates about 0.5MHz for repeaters on 2M. Just think of how many bits could be transmitted in a 0.5MHz.

bandwidth. Would it be possible to have all repeaters on the same frequency in a similar manner as proposed by the BBC digital network? Would it be possible to dial up and join a specific net anywhere in the country. I am sure members who are in the telecom industry will be able to come up with some really interesting possibilities.

There are many pages on the web - just search on DAB, NADIB or DRM and see what you find. Below is a reprint of just one I looked at, it covers a brief history of proposed broadcasts on the AM bands ... I would like to see digital operation for hf amateur operators

In September 1996 there was an informal meeting between a small group of broadcasters and manufacturers. It was decided that a formal effort was required to work towards a single work world digital AM broadcast standard, and to call a

larger meeting for further action.

In November 1996, a larger meeting of broadcasters, network operators, manufacturers, researchers, and academics was convened in Paris. At that meeting it was resolved to create a formal organisation to originate a digital AM system design, meeting market-led and consumer-oriented performance requirements, which could serve as a single, durable, tested, non-proprietary world standard.

GOLGG

Club Net

The club net is alive and well. Typically, up to eight stations meet every morning on 145324MHz starting at 08:00. Usually the net lasts for about an hour with the following station participating

G0TKV, G0LHZ/M,
G8NXJ/M, G0JMS/M,
G0LGG, G4ELY, G0VQR/
M, G7MER, G3PGM,
G4JTR, G4AWY, G6CHA,
G1HBD

The club net is also active on the last Thursday in the month again on 145325. Generally, many members monitor this frequency during the evening and a call usually brings a response

The club does have a 2m rig in the equipment library that is available for any member to use. Anyone licensed member wishing to join the net can do so by contacting Vin, G4JTR

G0LGG

G0LHZ/P Micro- Mini DXpedition Summer 1998

This year our family summer holiday was to be a week in a caravan at Bracklesham Bay which is on the South Coast of England about 9km south west of Chichester. I had not been to the site before and had no idea what to expect. Nevertheless it was an opportunity to take the radio! My poor family have got used to me taking the radio on holiday over the years.

We arrived on the site in bright sunshine (in fact we were lucky to have that wonderful hot and sunny week in August) and found that the caravan we had rented was on the edge of a large site. I noted that a lot of the surrounding caravans were obviously well looked after, occupied and sporting television aerials. The TV aerials were all pointing towards the Isle of Wight which was across the bay.

Our caravan was equipped with a television and an aerial - reception was not spectacular - a definite lack of signal strength. Considering most of the TV aerials were only about 2.5 metres off the ground it was hardly surprising that the received pictures were poor. Obviously TVI was going to be a problem if I ran high power.

It was lunchtime and very very hot - the family just wanted to sun bathe outside the caravan - a great opportunity to get on with erecting the aerial. I am not a great fan of sunbathing - I never know what to do with my mind when sunbathing.

The problem was where to string up an aerial. Unfortunately there were no handy trees or other useful high structures. The caravan occupied a plot about 5 metres by 3 metres. I had brought with me some wire, some poles and a 3 element trap dipole. The 3 element trap dipole was in fact the

driven element of the club's 3 element 3 band beam.

The poles I had brought allowed me to elevate the trap dipole about 5 metres above the ground. I lashed the poles to the side of the caravan and brought the coaxial cable feed in to the caravan through one of the roof vents. About an hour later (most of this time was tuning the traps) I had an aerial system that, according to my Autek RF1, was resonant on 3 bands (OK - I admit 21 MHz was a bit further out than I would like - but what the hell). I was ready to go on air and I had only been on site a few hours wow!.

The family had other ideas - they wanted to go a check the beach out - how unreasonable, I was just about to test the rig Oh Well.

The beach turned out to be stony at the top and sandy further down, it sloped gently away from the shore and looked ideal for bathing

when the tide was not fully in. After a late afternoon at the beach we tried out the local fish and chip restaurant. I can recommend Mrs. Murphy's Fish Restaurant.

Next morning I got up and check that the aerial was still in place - it was, although it had swivelled around and wound the co-axial feeder around the pole. I made a mental note that next time I try this arrangement I must remember to tape the poles joints with electrical tape to stop the poles from rotating. As we were only here for a week I decided that I would not alter anything yet.

I went back inside the caravan to await the bacon and eggs being cooked by my XYL. Suddenly the children shouted out - "there's a man coming towards the door - he is looking at the aerial, he is going to complain". I looked out of the window and saw that they were right, my heart sank a little and wondered what nature the complaint was going to be - I then

remembered that I had not even tried the aerial out yet. Hmmmm if it was going to be a TVI complaint I was confident that it was not me, but how was I going to convince the complainer.

The man looking at the aerial climbed the steps to the entrance door and, without knocking, came straight into the caravan. "So what is your callsign then?" he said "I am Mel G4WMP and I own the caravan just over there". I was somewhat relieved that it was not a complaint. Mel chatted to myself and the family for about half an hour and filled us in on all the info about the site and the locality.

As I had surmised, TVI was going to be a problem and the summer "residents" were very attached to their televisions and did not like TVI particularly during *Eastenders* and *Coronation Street*. Mel had at one time a tower on his plot, but had taken it down a few years ago because of the TVI

problem.

All this re-affirmed my feeling that I would be running a QRP station - no problems I had done this many times before and QRP can be fun. Later that morning I set up the Yaseu FT890 transceiver and adjusted the RF Power knob to 5 watts. I checked that the aerial loaded up properly and I was ready to go. Unfortunately the family were ready to go sight seeing.

The family had sorted through a great pile of leaflets and had mapped out various places to go. It seemed that this morning we were going to Tangmere Fighter station which is not far from Chichester. My son chose this trip.

If you have any interest in Fighter planes and the 2nd World War then you should visit Tangmere. There is a museum full of interesting stuff including various radios from the 2nd world war.

There was a pair of WT 8AMP keys rigged up to a Morse sounder with a notice for any "Wartime Radio Operators" to try their hand at sending code. I sent CQ CQ CQ de G0LHZ and V V V V V V de G0LHZ a few times, but nobody came back.

Another excellent place to visit if you are in the Chichester area, is the Body Shop Factory. My daughter chose this trip. I was skeptical at first, but I have to say that the tour of the factory is excellent and takes about 2 hours. During the visit you get to try lots of the products and come out smelling a lot better than when you went in. They also give you some free samples but there not much radio gear to be seen.

Well eventually I did manage to get on the air. I tended to stay close to the QRP calling frequencies 14:060, 21:060 MHz and look for QRP contacts. I had forgotten that the FISTS calling

frequencies are just below these and I made a number of FISTS contacts. FISTS are a club that encourages newcomers to CW, I am a member of FISTS (No 1155) and a member of the G-QRP club (No 7641) and so I was able to make a number of FIST to FIST and QRP to QRP contacts.

It was strange operating without computer logging and the DX cluster - I had to find my own DX. Best DX was K8CW on 21 MHz, he was FISTS member no 5243 and he gave me 599, which considering I was running 5 watts, I was very pleased with. I know he was probably using a 10 element beam at 50 metres height - but it still gave me a thrill to cross the pond with 5 watts and a dipole at 5 metres.

I was also surprised to work another American N1NM, but he only gave me 559!! . He was probably only using a 5 element beam at 25 metres! The rest of the contacts were made up of the usual

Europeans, Greece, Finland and the inevitable Russian. After I returned home I checked the Solar flux level (using the DX cluster) for the day I worked the Americans on 21 MHz - it was at 137. Just goes to show that if the solar flux is up and it is sunset you can cross the pond on 5 watts.

On the last day at the site, the site owner came over to our caravan and asked me whether my TV aerial was a permanent installation (he was referring to the trap dipole). I explained that it was temporary and would be removed the next day - he seemed happy with this. As he left he turned to me and said "it's rather ugly isn't it?" I replied that I thought it was quite a handsome aerial and that beauty was in the eye of the beholder. He gave me that strange pitying look (maybe he had seen my anorak) and wondered off.

So there you have - fun on holiday running QRP. As Peter Chadwick G3RZP said

at his recent lecture
"Building High Power
Linears";

"Life is too short for QRP"

Jim Carter - G0LHZ

G0VKT G0XTV G4ELY
G4HFN G4JNU G4JTR
G6ZTZ G8FIF G8FRC
M0BIY - the quorum was
met

Apologies

2E1BDO G3DMQ G6IZA

Approval of 1996 AGM minutes

The minutes of the previous
AGM were accepted -
Proposed M0BIY - Seconded
G4ELY

Minutes of Annual General Meeting held at Woodford Park, 11th December 1997

Present

G0JMS G0LHZ G0LIE
G0MZN G0PUB G0TKV

Chairman's Report

Paul G0VKT referred the
AGM to the annual report
book and said it was an
interesting year. G0MZN
asked how Chole was - she
was fine. Vin asked of her
CW speed. No other
questions were asked.

Secretary's Report

Peter G0PUB referred the AGM to the annual report book and said that the year had had some disappointing times with low numbers, but hoped that 1998 would see improvements, particularly as the sun spot cycle picks up in a few years time. No questions were asked.

Treasurer's Report and adoption of accounts

Jack G0LIE stated that lower turnover was probably due to two things - 1 that the accounts closed earlier than usual as he went off on holiday in November therefore missing the autumn junk sale - 2 the number of members was down on previous years. The club still has over £1000 to hand and the major source was the McMichael Rally. Jack mentioned that he had problems tracking unaccounted income and therefore the accounts did not balance. Fortunately the offset was in the club's favour so there weren't too

many concerns. The room was paid for until April 1998.

Adoption of accounts -
proposed G0MZN -
seconded G4ELY

AGM subs

The outgoing committee made a proposed to the AGM re 1998 subs and a vote was made.

- No change (£12.50/£6.25) = 1 vote ;
- Inflation Increase (£13/£6.50) = 14 votes
- Defer Decision to 1998 = 1 vote.

Subs for 1998 are therefore set at £13 or £6.50 for concessions.

Presentation of Awards

G5KV award - presented to an astonished G0LHZ for winning HF NFD QRP section

Foxhunt trophy to G8NXJ

(not present)

Constructors Award to G4JNU for his infra-red Baird televisor

A1 award to Ben M0BIY (ex-G7WHO)

A1 novice award - no nominations

Chairman's Award of Special Commendation - presented to Ben M0BIY for his achievements during the year - passing the 12 wpm test at 15 yrs old, organising club activities etc. The club (a majority had previously indicated their positive opinions to G0PUB) award Ben a sponsorship of £200 towards his £3000 target to get to the Chilean World Jamboree at the end of 1998. This was presented by G0PUB in the form of a big charity cheque.

Election of 1998 Committee

There were no posts requiring a vote and five

posts with a valid set of nominations. No objections were raised and thus the 1998 committee is:

Chairman

- Nick G0LGG -
- * proposed G0JMS
- * seconded G0PUB

Secretary

- Jim G0LHZ
- * proposed G0JMS
- * seconded G0PUB

Treasurer

- Min G0JMS
- * proposed M0BIY
- * seconded G0PUB

Ordinary Member 1

- Simon G6ZTZ
- * proposed GPUB
- * seconded G0VKT

Ordinary Member 2

- Dave G0TKV
- * proposed Min G0JMS
- * seconded M0BIY

Any other business

G6IZA asked prior to the

meeting to seek his 70cm aerial - Jim said he would check up on it. G4JTR asked about the Library - he would be librarian as a non-committee member - The new chairman applauded the idea - proposed GOPUB - seconded G4JNU. JTR asked for stuff in the library to be handed in. LHZ said he has all the hardware

Close

Paul thanked the new committee for standing and Vin thanked the old committee for their efforts. The formal bit closed at 20:40hrs [a record 30 minute AGM - GOPUB]. This was followed by Cheese and wine.

Minutes prepared by Peter Swynford GOPUB 12/12/97.

Club Meetings in 1999

To help fill in your new 1999 diaries, here are the Club dates (all Thursdays).

- 14th January
- 28th January
- 11th February
- 11th March
- 8th April
- 13th May
- 10th June
- 8th July
- 12th August
- 9th September
- 14th October
- 11th November
- 9th December

You may also wish to note

- 5th / 6th June (Saturday & Sunday) - HF NFD
- 3rd / 4th July (Saturday & Sunday) - VHF NFD

The venues for NFD are to be decided.

Member's Advertisements

Passed your RAE and Just
gained your M1 licence?

FOR SALE

Here's a selection of rigs you might be interested in.

FT-690 will get you on to 50MHz CW, SSB, AM or FM. The rig covers 50-54MHz has a repeater tone burst and microphone. Offers around £229.

FT-790 will get you on to 430-440MHz CW, SSB or FM. This could be the ideal set for running packet though it does also come with a microphone. Offers around £189.

TM-732 will get you mobile on VHF and UHF with up to 50W on VHF and 35W on UHF. Extended receive is possible covering 108-174MHz, and 410-470 MHz. The front of the set is detachable if you wish to mount the main unit in the boot of the car. Offers around £295

Finally, the Microwave modules MML50/144 transverter will get you onto 6 metres with a 2 metre radio of just a few watts. Output on 50MHz is up to 30W. With a dummy load the transverter will run down as low as 45MHz and as high as 60MHz. Requires 12V supply. Offers around £139

More info from Peter Swynford GOPUB
TEL 01635-847865 : g0pub@radarc.org

Member's Advertisements

Passed your Morse test and
Just gained your M0
licence ?

How about an FT-980 +
ATU.

The Yaesu FT-980 100W
HF transceiver comes with
full CW break in, narrow
filters, plus FM, AM , SSB,
WARC bands. It has general
coverage receive from
30kHz to 30MHz. Also
included is the wide band
transmit kit, a fist
microphone, full technical
manual and operator's
manual. The radio is mains
powered so you won't need a
separate power supply.
Included in the sale price is
an MFJ-949 ATU. What
more could you need for
your first HF station. Make
me an offer around £595

More info from Peter
Swynford GOPUB
TEL 01635-847865 :
g0pub@radarc.org



Old working or non working
Cordless Drills, it does not
matter if the charger or the
battery pack is defective the
only parts I am interested in
are the motor, the gears and
chuck assembly. The drills
are required for a schoolboy
robot project.

Please contact Jim Carter -
G0LHZ



1998 RADARC Committee:

Chairman:

Nick Challacombe, G0LGG (0118) 972 2489

Secretary:

Jim Carter, G0LHZ (0118) 984 2249

Treasurer:

Min Standen, G0JMS (0118) 972 3504

Ordinary Members:

Simon French, G6ZTZ (0118) 962 3529

Chris Nunn, G0MZN (0118) 987 4870

Dave Self, G0TKV (01491) 681659

Additional non-Committee Members:

Librarian and G3ULT QSL Manager

Vin Robinson, G4JTR (0118) 947 6873

Newsletter

Des Howlett, G8FIF (0118) 921 0399

RADIO is published by the Reading and District Amateur Radio Club who meet on the 2nd Thursdays of each month at the Woodley Pavilion, Haddon Drive, Woodley.

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Agenda of the 1998 Annual General Meeting

Distribution of Newsletter containing 1998
annual report

Apologies for absence

Chairman's review

Secretary's report

Treasurer's report and adoption of the
accounts

Presentation of awards

The 1999 committee

Any other business

Beer and cheese

DATE	MEETING / EVENT / ACTIVITY	DETAILS
Thursday 10th December	Annual General Meeting – Time to elect the 1999 Committee, judge the Construction Contest and of course cheese and wine	G0LHZ
Sunday 14th December	2m foxhunt ... no danger to real foxes, only Amateurs who get lost	G8NZJ
Thursday 14th January 1999	MCMXCIX – the year ahead. An opportunity for the 1999 committee to address the members	G0LHZ
Thursday 28th January	DIGITAL TV – A talk about the emerging technology of Digital TV, by Graham Roe. Graham is a director of Pro-Bel	G0LHZ
Thursday 11th February	World Scout Jamboree – Ben MOBIY gives a talk on the World Scout Jamboree in Chile and his participation in it	G0LHZ
Thursday 11th March	Static Electricity – Father Brown with a stunning lecture on Static Electricity. This is well worth seeing	G0LHZ
Thursday 8th April	HF Broadcasting – A talk on HF broadcasting	G0LHZ
Thursday 13th May	WWII Radio – A talk about the radios used during World War II	G0LHZ
Saturday 5th Sunday 6th June	HFNFD – Annual CW Contest	