

Wythall Radio Club
Wythall Contest Group
G1WAC G4WAC G7WAC G0WRC M5W

g1wac@wythallradioclub.co.uk http://www.wythallradioclub.co.uk

Wythall Radio Club meets from 8pm every Tuesday evening at Wythall House, Wythall Park, Silver Street, Wythall, B47 6LB, near Birmingham.

Visitors are very welcome. **Wythall Radio Club** is affiliated to the Radio Society of Great Britain

Officers
Chairman: Chris G6KMQ
Secretary: Chris G0EYO
Treasurer: David G0ICJ
Committee -
Martin G8VXX Rally Team Leader and Deputy Chairman
Vaughan M0VRR Web Site Team Leader
Lee G0MTN Contest Liaison
Callum M0MCX
Peter M5DUO Antenna maintenance.
Tim M3SDE QSL Manager
Mike G4VPD

Club Diary

June
3rd Summer Fox Hunt
5th 2m Club Championship from Shack
12th Committee Meeting
19th Talk by Chris G1VDP on DXing
26th Visit to LF Droitwich 7.30 for 8pm

July
3rd 2m Club Championship from Shack
7th-8th VHF NFD
10th Committee Meeting
17th Equipment familiarisation and Night on the Air
24th Talk by Tim M3SDE on Dxpedition to Peter 1 Island 3Y0X
31st Natter Night

August
7th 2m Club Championship from Shack
11-12th Evesham Steam Fair Special Event Station
14th Committee Meeting
21st Equipment familiarisation and Night on the Air
28th Talk by Chris G1VDP WAB Awards

Newsletter
Summer 2007

Evesham Easter Vintage Fair Special Event

Over the Easter weekend, and at the invitation of the organizers, the club set up a special event station at the Easter Vintage Fair in Evesham. It was decided to participate in this event following the hugely successful special event station we set up at the Hanbury Steam Fair last September. Like the September event, Darren MW5HOC and Carol MW3YKL, were quick to offer their support and to bring up their motor home from Cardiff for the whole weekend. We found ourselves a bit light on members with towing capability who would be available that weekend and willing to bring the club's caravan down to Evesham from its home in Smethwick. However that problem was quickly solved with Martin G8VXX offering to tow it with his transit van. Following a decision made in committee some months previously it was decided that we would build a special event station for use in the caravan rather than strip the radio shack down each time. We had already purchased a mast that was capable of being mounted on the caravan and it already had its own gas driven generator and fridge. We purchased an FT847 from Reg Brown's SK sale and added a power supply and manual ATU to it for HF operation. The club already had a VHF/UHF set that



was not being used so the FT736 was also pressed into service for 2m work. In addition to the caravan mounted mast we also have a army tubular aluminium set of poles and guy kit permanently stowed in the caravan in case we needed a second mast. We would use a Windom for HF and a 2m vertical collinear for VHF.

Thus it was on a glorious Good Friday, that Martin and I picked up the radios and cables from the shack and drove through town to Chris's G6KMQ works premises to pick up the caravan. An hours journey down the M5 and then off at Jct 6 to Evesham brought us to the site at around 4pm. Darren and Carol were already there and we were directed to our spot by the visitors entrance by the organizer, Keith Shakespeare. Space was not to be a problem so we could run out our windom wires from the caravan mast. Early attempts to put the collinear on Darren's motor home mast which was about 2m from our caravan mast

Editorial

This is my first newsletter as Editor and I expect this to be a temporary assignment. Over the past twenty years each editor has changed the format to suit their particular style and available technology. The first newsletters were done using a dot matrix printer and an employers copier. Alban G7UGC, our last editor, made it an A5 style so it could fit easier into your pocket and having access to modern DTP and printing facilities made it look quite modern. He also used to print it free of charge for the club. This format is designed to be Adobe pdf'd and distributed to member's e mail addresses where it can be printed off and also be downloadable from the website. Anyone who wants a printed copy please let me know. Alban was an excellent and willing editor and will be a hard act to follow so I stress the temporary nature of this assignment. I will be on the lookout for materials to include in the newsletter so please get those creative juices flowing.

Chris G0EYO Acting Editor

g0eyo@blueyonder.co.uk



met with a high VSWR on 2m so we eventually sited it about 6m away on four tubular aluminium poles. This was fine for 48 hours or so until Martin's little dog Charles decided to chew through one of the guy ropes. Easily sorted and gave us all a good laugh.

We had the usual problems starting the generator so decided to leave it until the Saturday when Chris G6KMQ would be on site to give it his healing hands. Come the Saturday and Chris G6KMQ, Martin G8VXX, David G0ICJ and myself were back on site with Darren and Carol to finish off the set up and to start working the world. We were continue to be blessed with good weather and Martin decided that he would stay overnight to enjoy the pleasures of the beer tent with Darren and Carol and the country band which were thought less highly of.

There was plenty of action on the vintage fair site to keep us all interested if were not playing radio or just soaking up the atmosphere. On the Sunday, we were all back on site with the exception of David G0ICJ and were joined by Tim M3SDE, Colin M3OFW and Peter M5DUO and Anita. On the Monday, there was another change around of the team and Darren, Martin and Chris G6KMQ were joined by Tim M3SDE and Neil M3POV. Everyone had a good time, although we could have done with a bit more help to man the stations and more importantly to help with the knockdown. The next event is Steam Fair on the same site on August 11th and 12th. Put it your diary and make the effort to come along and have a good time.

Chris G0EYO



How does this work then?

Going /P to work N8S Swains Island

As the conditions had not been that good for the Pacific area and Swains Island in particular, Tim and I decided to have one of our forays into the wild to see some friends and play radio for a day or two. We had planned another trip to Somerset to see the 2 Peters (M0ILT and M1SOM) and at the same time make use of their 2 element SteppIR antenna. But when Tim said he needed to go and see Jed at some point to do his computer for the logging software, and the mention of a 4 element SteppIR was mentioned this won hands down.

We arranged for Tim to come over and pick me up at 6.30 pm, which gave me enough time to get changed following work. We set off down the motorways to the South Downs, arriving in the dark at around 9.30 pm. Jed met us and we transferred all the gear in to his van for the short ride up to the farm. Upon arrival my first thoughts on seeing the antenna was "I want one!" We then proceeded to get the Yaesu FT-2000 set up and connected to Jed's antennas and amplifier.

After a little while of tuning and hearing lots of US stations Jed convinced me to put out a CQ call, I thought I would go higher up the 20M band as this would allow all the US licence classes to give us a call. I set up on 14293 and called CQ, with no response, so another call went out and I was greeted by a call from W7IMP in Florida where we exchanged reports and name. From here the pile up just exploded.



Never have I experienced a pile up like it for my home call. G1VDP suddenly became the most wanted station in the USA, I was completely astounded. I was not just giving the guys a standard "You are 5 &9" report. I tried to spend a minute or so with each one and I think it made a little difference, but I was there for my enjoyment and I would work the guys as I felt the QSO's needed to be. In amongst the calling I heard /M and QRP stations call and when I asked the big guns to stand by whilst I pulled the weaker ones out the noise dropped and they stood back and let me do it. Real gentlemen operators.

More surprises came in the form of a Panama station calling me, and then a Jamaican a little later, along with numerous Peurto Ricans. These are the guys who I chase, but they all wanted to work me.

One of the memorable QSO's was with N2NHN, Jack, who had his local news paper doing a story on Amateur Radio. He told me I was the loudest signal on the band, and asked me where I was and where in the UK I came from, all the time my reply to him was being recorded by the newshound. I have asked for a copy of the article to be sent over.

As time wore on I was getting thirsty, every time I went to have a drink the other station would return to me and I had no chance to drink my beer so I asked Tim to get on the



mic. As Tim got calling and working the pile the days work and lateness of the time caught up to me and I fell asleep on the sofa covered by one of the sleeping bags we had taken with us.

Jed went back home and left Tim and I to play on the radio all night. Even when Tim got on the mic and we backed off the power the pile up didn't abate. If anything it grew. When I got home I looked at the previous days cluster spots on DXcentral.com and I had been spotted numerous times and then so had Tim.

As this was my first experience of this type of pile up, or should I say being the DX if you like, I will now understand why I didn't get through on my first call. The cacophony of all the US shouting at the same time was fantastic, and it was a case of pick out just one or two letters of a call, and sometimes you would get the odd real loud guy who would call and break through the wall. It was also satisfying to get the reports of awesome audio, as well as the S9+30 reports, as this to me is better than being such a strong signal.

The next morning we woke early, partly due to the surroundings and partly the alarm we set to make sure we were set up for N8S coming on at 6.30 am as he had been showing all week, though I must say it was very weak here in Nuneaton. The kettle went on and we had a tune around the band before settling on 14190 with a split of 5 upset ready. At 06.33 we heard his call - "N8S QRZ?" – and Tim called and worked him. I put the headset on and called as he finished the QSO with an Italian, missed him he went back to a German, so I called again and he came back with my call, at last, the one I wanted in the log and now I just need the QSL to confirm this new DXCC.

As we sat drinking the mornings first brew we chatted about the previous evenings pile up. We looked at the log and realised that we not only worked the East and West coast of the USA, but the whole of the US was in the footprint of our signal, along with the Northern part of the Caribbean.

Jed arrived and we set up his logging software and gave a demo on what it is capable of. Another brew and we had a listen around the bands, took some photos of the antenna and the shack, and eventually had to start packing away our gear so Jed could get his shack back to normal. Definitely an experience I will never forget. And my first words from the previous night still stand, especially after seeing the SteppIR 4 element in the daylight, "I WANT ONE!"

Chris G1VDP and Tim M3SDE



Ah! Bless him

DXCC Trophies Awarded

The winners of the DXCC Trophies for 2006 were announced in the last issue of the newsletter, but it was only recently that we got around to presenting the worthy winners with their trophies. These magnificent trophys, sponsored and provided by Chris G1VDP, were present by our Chairman, Chris G6KMQ to Tim M3SDE for coming first in the open section and Colin M3OFW for coming first in the restricted section. Chris G1VDP is already collecting the scores for 2007 so come and have a go you never know you might be the next winner



Well done Tim and Colin

QSL Manager's Report

The new design QSL cards are now being sent out to the many QSL cards that have been received in the last few months. The several contests where the club has amassed many thousands of QSO's in the last couple of years have resulted in quite a steady stream of Bureau cards coming through.

I have a plea now, if you have on your computer any ADIF files from club call signs like G1WAC, G4WAC etc, that maybe you were contest manager for that contest, please can you email me the ADIF file along with the call sign used to m3sde@btopenworld.com To be able to confirm the QSL cards I of course need the log file to verify the QSO.

I have been asked "Why do I use a PO Box?" Well I have held PO Box 17 for many years, being a QSL manager results in sometimes large quantities of mail arriving to my address, I work as a postman and of course when the post arrives I am never at home, and while I was away for a month in the Cook Islands of course there is no one to accept the bags of mail at my home. I also do not work in the same sorting office where I live so the alternative was to use a PO Box from the office where I work so that I can take the mail home after my shift at work.
So you see, I really do have nothing to hide!

I have recently volunteered my services to assist the RSGB as Sub Bureau Manager for the G4DAA – G4DZZ and G4RAA – G4RZZ call series blocks. Finally if anyone needs any assistance with QSL card design printing or QSL management please drop me a line. Enjoy the summer Sporadic E season, hope to work you on the bands or see you at the Field day events!

Tim Beaumont M3SDE

Verticals for the low bands by Callum McCormick, M0MCX

Callum has written a diary of his recent antenna experiments

7th May 2007

This afternoon, I've been playing with an 8 meter fishing pole in the garden, clamped to a 3 meter aluminium pole with 2 x 10 meter elevated radials sloping from the feedpoint at 3 meters to fence height. It's got a bottom loaded coil to get on 40 meters. I wound the vertical just very slightly helically so that it didn't flap in the wind however I can guarantee this had no effect on the loading.



After some experimenting, 13 turns gave me a good match between 7.0 and 7.2 with SWR not exceeding 1.4:1 - and I managed to do the final tweaking by shortening the radials by half a meter.

There's a number of conclusions here. The most surprising is the accident concerning a certain 80m vertical; I started life with 66 turns on the former which gave me an 80 meter vertical antenna. (More of that later), the main experiment seems to have worked in giving me a vertical for 40 meters but I also discovered a resonance at 23.6 Mhz which confused me.

However, comparison listening tests between this new vertical and my horizontal delta loop gave me some interesting results. Local signals this afternoon were barely copyable on the vertical but 59+ on the loop. I've just been listening to a couple of German stations, probably about 500 - 600 miles away and there is no discernable difference between antennas but a Spanish station that I'm listening to at 1,000 miles away is certainly 1 S point better on the vertical, more often than not. Clearly at distances of 600-700 miles, the vertical starts to outperform the delta loop, certainly on receive.

On transmit, further tests demonstrated to me that more often than not, long distance contacts were slightly more reliable on the vertical than the loop, however since most of my contacts on 40 meters are within 2,000 - 3,000 miles, the loop will be my long term favourite for higher quality contacts and more of them.

Pictures at: http://www.m0mcx.co.uk/gallery/index.php?/category/38

12th May 2007

I didn't document fully last weekend that my 40m vertical experiment gave me a rather good match on 3.8Mhz. This gave me the idea of building a better 80m vertical this weekend by loading up both the vertical - and the radials. As I type this as I discover that first time up, I've achieved a resonance (of sorts) at 3.456 Mhz however, I'm not getting 50 ohms. The SWR is at best just under 2:1. I have reduced the legs of the radials a bit because of the loading coils (which all have 68 turns on my favourite 40mm plumbers pipe). I shall now adjust only the vertical coil. I know I should in theory adjust all the coils to keep them in unison however, the actual length of the radials is not precisely known; only that they are 'about' 9 meters plus a loading coil - and in any case I can just shorten the radials for fine tuning.

Here's the resonant coil adjustment chart for the vertical coil:

- 68 turns: 3.456 Mhz
- 67 turns: 3.470 Mhz
- 63 turns: 3.535 Mhz
- 59 turns: 3.600 Mhz
- 55 turns: 3.690 Mhz (1:1 SWR dead)
- 54 turns: 3.691 Mhz (I tightened up the radials which had an adverse effect so that the resonant frequency hardly moved)

52 turns: 3.740 Mhz (SWR rising a whisker now)

I finished on 53 turns in the end. I've started keeping a couple of turns or more spare, never cutting off all the 'dead ones' as I take them off so I can wind them back on if I overshoot. My 'best' spot frequency is now 3.715 at 1:1 SWR with a 2:1 SWR curve starting at 3.6 and going all the way beyond 3.8. In fact, 3.8 has an SWR less than 1.5:1. I look forward to testing its RX and TX capabilities tonight on the CQ-M contest. I'll do a quick single-band entry on 80m. I've also fitted a load of ferrite clip-ons as a type of current balun up by the feedpoint.

Pictures at : http://www.m0mcx.co.uk/gallery/index.php?/category/39

13th May 2007

CQ-M contest: 80m vertical -vs- 80m full-sized one-wavelength loop.

Overview: The first thing that I noticed was that during daylight hours, the vertical was utterly hopeless. Inter-G signals were virtually unreadable, to the point I thought it wasn't working. Indeed, being daylight, I couldn't hear a thing, just noise. Switching my NVIS loop in to circuit brought the band to life with usual weird discussions of carrot growth and weather. As nightfall fell, the vertical started performing but nowhere near the performance of the loop. By 22:00 UTC, the Russian and nearby European stations started coming in stronger, but again sounded better on the loop and it didn't seem to matter what antenna I used to transmit on either. One German noted on comparison tests absolutely no difference on TX.

I called for RP3PRP on the loop (he was loud) and he had some problems receiving me so I switched to the vertical and we exchanged reports and my confidence rose.



Again with 9A7KM, I started the exchange with the loop because that's where he sounded so good but flipped to the vertical to complete. Confidence grew higher. Then

MW5W/P station planned for CQWW 2007

After the successes of our previous two /P contest stations from the SSB HF Field Day and last years CQWW Phone Contest we did from Alderney as MU5W we decided that we would again concentrate our efforts on the 2007 CQWW contest.

As well as using the expertise within the Wythall Radio Club I found that friends from outside the club also wanted to have some fun and join in the project. Of course we made mistakes last year! One of the big mistakes fell at my door with poor communication to those within the team. So this year we have set up a Yahoo chat Group http://groups.yahoo.com/group/m5w Please feel free to sign up to this group as Wythall Club members if you wish to follow our adventure through the year and all are most definitely welcome to join the team.

This year we have been again lucky with the location, we have a site on the west coast of Pembrokeshire Wales, the full use of a large farmhouse and a field the size of 100m x 200m. The farm is owned by a friend MW0RLJ Rob. We will be using the call sign MW5W as this year's entry.

The first planning meeting took place at the home of Callum (M0MCX) in Dorridge where it was felt that the 3 attendees would be the team co-ordinators for the operation

The operation will be a Multi-Multi entry into the CQWW DX Phone contest using 4 Stations across all bands from 160M to 10M on the HF spectrum. These will each be linked via a computer network for logging purposes.

Hardware
Computer/IT: Callum is to provide 4 complete PC's with N1MM logging software and networked for each other station able to view. We hope that this will also be linked to the internet via Rob's broadband connection.
Radios: These will be supplied by the operating team members. The following are what we would like to have in place.

a.. Yaesu FT2000 X 2 – Supplied by Chris (G1VDP) and Tim (M3SDE)

b.. Yaesu FT1000 X 2 – Supplied by Rob (MW0RLJ) and Oliver (MW3SDO)

c.. Yaesu FT 920 X 2 – Supplied By Marti (M1DCV) and Ant (MW0JZE)

d.. Icom IC756 X1 – Supplied by Rob (MW0RJL)

a.. Amplifiers: As we wish to put on a competitive entry we feel that we will need to use amplifiers on certain bands to be a big signal. So 400w it will be.
Antennas: This is the main part of the station and was the most discussed item. We have between each team member the knowledge and skills to make antennas for each band and we have already some of the antennas available which are used by the owners on each band. Below is a list of some of the antennas we hope to use.

160M – This is Carl's (G0NZI) band and we know he is the specialist on here.

80M – A ¼ wave vertical for this band with raised radials.

40M - A ¼ wave vertical for this band with raised radials.

20M – Chris (G1VDP) has a multi band beam which will work on 20M and if needed could be used on 15M and 10M as a backup

15M – Ant (MW0JZE) has agreed to build a beam for this band.

10M – Rob (MW0RJL) has a 4 element beam for this band and has kindly agreed to allow the use of this antenna.

So this is the basic briefing of our plans, I hope that this excites your contest appetite enough to join in the Yahoo M5W Chat group or even join as Team members as operators or helpers, you are all welcome! A further report will be written for the next newsletter to tell you how the plans are going.

Tim M3SDE

Verticals for the low bands by Callum McCormick, M0MCX /....continued

UP0L in Khasakstan for a 3,500 mile hop again on the vertical. But this isn't the whole story. Don't think the vertical performed better on TX than the loop everytime - this isn't the case. This particular vertical is one heck of a compromise; remember, only about one ninth wavelength and only three meters above the ground.

My loop on the other hand is a proven high performance antenna that's got a history of DX to the Far East and North and South America. After a couple of hours and 48 QSOs across 20 countries, I realised that for 90% of the QSOs that you make on 80m, an inverted V, a regular dipole or perhaps a delta loop (like mine) at around 30 feet will be fabulous - and you'll have the advantage of being able to have a QSO in your own country. Occasionally, having the flexibility of switching the vertical in gives you an added interest but it's hardly worth the effort. A 4-square would be a different story though, and for the uninitiated: a 4-square is 4 x ¼ wave antennas phased in a square, quarter wavelength apart that 'pushes' a lobe of RF (db gain) in a specific direction at the push of a button. However it's hardly an event antenna, more suited to permanent installs.

For me though, I don't think this test was completely conclusive. I'd like to build a full-size quarter wave with full-sized raised radial set to complete the test with a feedpoint at 5 or 6 meters above ground: in other words, doubling the size of this little twig and maybe I can aim at building it for this year's NFD. I have a feeling that it was the loaded radials that was restricting my efficiency, not the loading coil in the driven element. My experience of a 40 meter quarter wave gives me some confidence in this arena but I'm also wary of the different characteristics of 80 meters which maybe much more suited to higher dipoles.

There was though one small advantage that I haven't documented, and that's the use of a vertical as a dedicated QRM receive antenna. I scored many points by finding distance stations between strong UK stations. I can reduce UK stations by around 40 db by switching in the vertical, whilst at the same time keeping the target station clear in my headphones.

In conclusion, verticals for 20 meters and above may well be good performers and I'll certainly have a bash at a 20 meter version of this shortly but for 40 meters and below, be clear about what they'll do for you. I do not recommend them as your primary antenna unless of course you are very restricted on space - and even then, there are shortened alternatives that can be squeezed into small plots.

Callum
M0MCX

Contest Report

Club activity in contests has tailed off in the last couple of months, with a few regular entrants finding themselves busy with other projects or commitments. So the Wythall Contest Group Marketing Sub-Committee should swing into action – trying to recruit, coax, cajole or persuade some more of the members to have a go at some radiosport.

For those starting out, there are a number of relaxed easy going HF events over the next couple of months. At VHF, a great way to enjoy the summer weather is to try the 2m or 6m Backpackers contests. Short, four hour events, where even an old dusty FT290 and an HB9CV are enough to get you into the game.

There are only a few weeks until VHF NFD at the start of July – which has evolved for the club into being a large summer social event, a full weekend's camping and a non-stop barbecue at Wythall Park. In recent years the competitive side of this weekend has reduced, and we've seen bouncy castles, balloon verticals, and amateur astronomy all make an appearance. Still, expect to see stations operational on at least 50 and 144 MHz, and some pleas for operators to come and play during the week or two before NFD.

A more serious event is planned for September, with the HF SSB Field Day. Details are still under wraps at this stage, but after a great first time outing for the team last year, I'm sure they will be back with some new tactics and ideas as they strive for the #1 position.

As you will see from the preceding article, Tim M3SDE and Chris G1VDP, which local assistance from Callum M0MCX, will be helping to put on a substantial multi-operator multi-transmitter station in the CQ WW DX SSB contest from Wales at the end of October. Expect to hear more about the planning of the 2007 MW5W operation in the run up to the world's best supported contest. This follows the team's adventures of MU5W in Alderney last year.

The sun watchers have been keeping a keen eye out for sunspots – with a little luck better HF band conditions will finally be on the way. Thanks to those that have sent in scores and comments for the monthly contest reports.

73,

Lee G0MTN

Contest Calendar (times in UTC)

June		
HF:		
2-3	Sat 1500 – Sun 1500	NFD (CW)
4	**Mon 1900-2030**	**80m Club Championship Data**
9-10	Sat 0000 – Sun 2400	ANARTS WW RTTY
13	**Wed 1900-2030**	**80m Club Championship CW**
21	**Thu 1900-2030**	**80m Club Championship SSB**
23-24	Sat 1200 – Sun 1200	King of Spain Contest (SSB)
VHF:		
5	**Tue 1900 – 2230**	**144 MHz UKAC / Club Championship**
10	Sun 0900 – Sun 1300	144 Backpackers #2
16-17	Sat 1400 – Sun 1400	50 MHz Trophy
17	Sun 1100 – Sun 1500	50 Backpackers #1
July		
HF:		
2	**Mon 1900-2030**	**80m Club Championship CW**
11	**Wed 1900-2030**	**80m Club Championship SSB**
14-15	Sat 1200 – Sun 1200	IARU HF Championship (SSB / CW)
19	**Thu 1900-2030**	**80m Club Championship Data**
28-29	Sat 1200 – Sun 1200	RSGB IOTA Contest (SSB / CW)
VHF:		
3	**Tue 1900 – 2230**	**144 MHz UKAC / Club Championship**
7 – 8	Sat 1400 – Sun 1400	VHF National Field Day
8	Sun 1100 – Sun 1500	144 Backpackers #3
15	Sun 1100 – Sun 1500	50 Backpackers #2
22	Sun 1100 – Sun 1500	144 Backpackers #4
August		
HF:		
5	Sun 0700 – Sun 0900	RoPoCo2 (CW)
11-12	Sat 0000 – Sun 2400	Worked All Europe CW
18-19	Sat 0000 – Sun 1600	SARTG RTTY
25 – 26	Sat 1200 – Sun 1200	SCC RTTY
VHF:		
7	**Tue 1900 – 2230**	**144 MHz UKAC / Club Championship**
4	Sat 1400 – Sat 2000	144 Low Power
5	Sun 0800 – Sun 1200	432 Low Power
19	Sun 0900 – Sun 1500	70 MHz Trophy

Rules & Info:

HF: http://www.rsgbhfcc.org
http://www.sk3be.se/contest

VHF: http://www.vhfcc.org

Wythall Radio Club Summer BBQ

at this years VHF NFD on Saturday 7th July.

All club members and families welcome

7pm onwards.

Free of charge just bring your own drinks and something to sit on

Contact Chris G0EYO to tell him how many people you are bringing on e mail g0eyo@blueyonder.co.uk or 07710 412 819



The next issue of the Wythall Radio Club Newsletter will be published at end of September 2007

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