

# C.D.A.R.S.

December 2024

CHESHAM & DISTRICT AMATEUR RADIO SOCIETY MONTHLY NEWSLETTER

## All About Antennas - The Quad.

We meet the 2nd Wednesday each month at The Golden Eagle Pub in Ashley Green and every 4th Wednesday each month at the Ashley Green Memorial Hall, Ashley Green, HP5 3PP



**Merry Christmas & A Happy  
New Year.**

### Technical

**WSPR BEACON  
PROJECT UPDATE**

### Regulars

**\*Dates For Your Diary  
\*Radio Rally Dates  
\*Contest Results**

Want to write something for the newsletter?  
Then you can contact me on  
[cdarsnews@gmail.com](mailto:cdarsnews@gmail.com)

Can't find that elusive part or have anything for sale?  
Why not drop me an email and put it in  
'For sale and wanted'.

## Morse links

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If you're interested in Morse code, here are a few useful links:



### FISTS CW Club

Promoting Morse Code for 36 years 1987-2023

<https://fists.co.uk>

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### WIKIHOW

### How to learn Morse Code

<https://www.wikihow.com/Learn-Morse-Code>

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### The Ham Whisperer

### Morse Code Course

<http://www.hamwhisperer.com/p/morse-code-course.html>

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### LEARN MORSE CODE

### LEARN MORSE CODE in one minute !

<http://www.learnmorsecode.com/>

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### Welcome to LCWO.net

### Learn Morse Code (CW) Online!

<https://lcwo.net/>

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### Tools for learning Morse Code

<https://www.aa9pw.com/morsecode/>

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### Celebrating the unique art form of Morse Code

<https://cwops.org/>

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### Morse Code by Ray Burlingame-Goff (SK - 29<sup>th</sup> July 2021)

<http://www.g4fon.net/>

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**Chairman** - Dave Keston (G8FMC)      **Secretary** - Malcolm Appleby (G3ZNU)      **Treasurer** - Matt Whitchurch (M1DTG)  
- Guy Plunkett (M0GUY)      - John Hall (G0ODQ)      - Peter Holliday (2E0PTH)  
- Roger Fellows (M7RMF)

All the above are members of the committee and can be contacted on [cdars-committee@googlegroups.com](mailto:cdars-committee@googlegroups.com)

**Newsletter Editor** - RogerFellows (M7RMF)

# Welcome

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**W**elcome to the December issue of the CDARS newsletter. As we come close to the end of another year I would like to thank everyone who has contributed to the newsletter during 2024. Without your help the newsletter wouldn't have continued as Brian M0IHY would have wanted and I hope, between us, we have produced something that Brian would have been proud of.



**Roger  
M7RMF/2E0TGU**

In this issue we continue with the 'All About Antennas' series with a look at the 'Quad', there's an update on the beacon project that Peter 2E0PTH showcased last month.

Malcolm G3ZNU gives us a short insight into the Inter Club quiz we have with AVRS and also, as it's the festive season, there's a complete list of all the questions, and answers, that Malcolm put together for the annual Club Dinner evening.

To round off there are all the regulars from Dave G8FMC with all the contesting news.

I hope you enjoy this issue and I wish you all a Very Merry Christmas.

**Roger M7RMF/2E0TGU.**

# Chairmans Ramble

With the Hamfest & the RSGB Convention behind us, this month has been relatively quiet. Starting to think about and plan for Christmas. This year will be the 3rd anniversary of my beloved Jean's passing, so mixed emotions for me.

The CDARS Christmas meal, early this year on the 27th was well attended, including three guests from AVRS. Also as guest of honour Angie, who lost Bryan MOIHY earlier this year. Everyone seemed to have a most enjoyable evening.



**Dave G8FMC**

I have progressed my plans for the remote 70cm PA a little, but not done all I had hoped. I have routed a mains power lead into the far loft area, with the plug in the shack, where it can be switched on with the other 70cm kit. I have a large PSU and the BNOS PA mounted on a board. (See picture; being tested prior to going into the loft).

I had a challenge: How to monitor the remote PA, to see if it is being driven appropriately? Options considered were:

1. Use an output Power/SWR sensor unit, with the bridge/indicator in the shack
2. Remove the BNOS front panel and mount that in the shack, via a multi-way cable
3. Mount a video camera in the loft, aimed at the BNOS PA front panel.

Option 3 seemed to potentially be the easiest and quickest to set-up? It seems that USB cables are not happy if over 5m long?! Some sort of wireless camera seemed the way to go, of the type used for home security, linked to a phone App via the house router? After a little searching I settled on a 'Tapo C100 Home Security Wi-Fi Camera'. I actually got that from Argos at a competitive price and a comprehensive manual was available on-line; bonus! Following the 'easy to set-up instructions' was NOT that easy! I really struggle with digits and Apps. Eventually some hours and a few days later, we had success. Initially I thought I could pick up the video feed from my router, to my PC. No, Apple or Android Apps only, so had to use my phone. (Possibly the first App I have ever downloaded to my phone, without help from my family IT consultant; Jaz, my granddaughter!) Eventually I seemed to get it working, although there is about a one second delay before what is on the PA front panel is displayed on my phone. Useless for SSB, but OK if I set up with a steady carrier.

The next task is to grovel in the loft with an inspection lamp and soldering iron etc, to break into the coax feed and fit 2 additional 'N' connectors, to put the PA in-line. I also need to arrange some illumination (12v off the PSU?) so that the camera can properly 'see' the PA front panel. In low-light mode it defaults to monochrome! When the PA move is complete I might then have about 65W instead of say 40W at the antenna? Every extra bit helps.

As mentioned last month; the final phase on 70cm is to complete the build of my 70cm Transverter, to drive the remote amplifier. I have refreshed my memory on roughly where I had got to before it went on-hold, some years ago! No further progress than that at this moment.

**73 all, Dave K, G8FMC**  
(Chairman and Contest Coordinator)





# Contests/Operating

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In 2025, starting in January, we (CDARS and Friends) will put all our UKAC points to Northampton, possibly returning to CDARS in 2026? So would all 'Associate Members'; i.e. AVRS and other individuals, please tag their entries to Northampton from January onwards. Northampton will probably retain the lead for the 80m CC's, but CDARS may take the lead for the (very similar) Autumn series. We will confirm this in the new year.

The weekend events and the AFS Superleague will still be under the CDARS banner, for both VHF and HF.

## The UKAC's 2024

We are still a whisker behind Hereford overall, but now only 6 pts in 2,700! All to play for in December. (Unfortunately this is just for 2nd place as Parallel Lines are way ahead of both of us).

## VHF Championship 2024 (AFS section)

We WON!!! 1st place out of no less than 87 entrants, congrats & thanks to all involved. CDARS & Associate Members bagged the coveted 1,000 pts for both 23cm and 13cm; to make 6 maximums over the year. Hereford (who appear to have 'thrown-in-the-towel' for these last 2 events) got just 4 maximums, so the final scores were:

CDARS = 9,510, Hereford = 7702; i.e. we thrashed them!

Pete G4CLA, the adjudicator for the VHF Championship gave us a rather nice write-up:

*"This year the winners of the AFS section are Chesham & DARS, pushing the previous champions, Hereford ARS, into second place. Congratulations to Chesham, who have been improving their AFS score each year and in so doing have kept moving up the table and have now reached the top spot. Sheffield & DWS have retained third place for the second year running".*

We will thus get awarded the 'Trophy' and get it engraved!? This should be presented next year at the 2025 RSGB Convention in October; although we won't be allowed to keep it!

## 2024/25 AFS Superleague series:

We have got 2nd place in the 70MHz event and on 50MHz we only managed 5th place, in appalling conditions, with only a partial showing; just 4 of us. Some of us that did manage to get on had masts telescoped down and suffered terrible noise. I actually reduced power part way through, as it was embarrassing having lower power stations responding to my CQ calls that I was totally unable to copy!

The next event was the 160m CC. We had 4 on SSB only and 2 in mixed mode; where one can get additional contacts, but is up against some top CW operators. As anticipated we only managed another 5th place, but are still holding 3rd place overall. There is still the 144MHz event on 8th Dec, where we should do quite well?

## Other Contests:

I have had a dabble on CQWW SSB, using the club call of G3MDG, in the biggest international HF phone contest in the year! I did quite a few 'unsociable' hours on Saturday but did not do much on Sunday, until after dark (when I caught-up on 80m). It was a lovely sunny day on the Sunday, so I went out for a while and did very non-radio stuff for a few hours!

I was very happy with my part-time effort, which was all S&P, just looking for interesting and un-worked countries and zones. (We are zone 14 in CQWW parlance)

This was the setup and tally:

CQ WW SSB 26-27 Oct 2024

G3MDG used from G8FMC QTH  
All S&P

Elecraft K3s + KPA500 + KAT500

3.6MHz = Dipole with Wellbrook Loop for RX

7Mhz = 3/8 wave vertical (well, a bit longer than 0.25 wave, with series capacitor)

14MHz = Delta-Loop

21MHz = 7MHz vertical 3rd harmonic + tuner. (Works, but probably rubbish low-angle?)

28MHz = 14MHz Delta-Loop + tuner (not a clue what radiation angle that has on 10m?)

<u>Band</u>	<u>QSOs</u>	<u>Pts</u>	<u>ZN</u>	<u>Cty</u>	<u>Pt/Q</u>
3.5	63	65	6	26	1.0
7	63	101	11	36	1.6
14	32	56	5	16	1.8
21	57	83	11	29	1.5
28	79	190	14	25	2.4
<b>Total</b>	<b>294</b>	<b>495</b>	<b>47</b>	<b>32</b>	<b>1.7</b>
<b>Score:</b>	<b>88,605</b>				

I was going to set-up my Cobweb for 10, 15 & 20, but the weather Friday was not so great, and in the end I made-do with the antennas above. There are additional points for 10m (& 160m as it happens) so if 10m is open use it! I was particularly pleased with my 36 countries and 11 zones on 40m (mostly during unsociable hours) including several areas of the USA and Canada. That extended vertical DOES work well on the DX stations, significantly better than a 0.25 W/L vertical or a Dipole! (Rubbish for inter-G or near EU though; which is when the Dipole excels) The vertical radiation pattern of an HF antenna is SO important, depending on which bit of the globe one wants to contact. Short-hop/NVIS for e.g. near EU, or low-angle for long-hop inter-continental i.e. DX.

That is it for this month; an extra bonus page!

**73, Dave K, G8FMC**

# All About Antenna's - The Quad.

A quad antenna is a type of directional wire radio antenna used on the HF and VHF bands. A quad is a Yagi-Uda antenna ("Yagi") made from loop elements instead of dipoles: It consists of a driven element and one or more parasitic elements; however in a quad, each of the loop elements may be square, round, or some other shape. It is used by radio amateurs on the HF and VHF amateur bands.

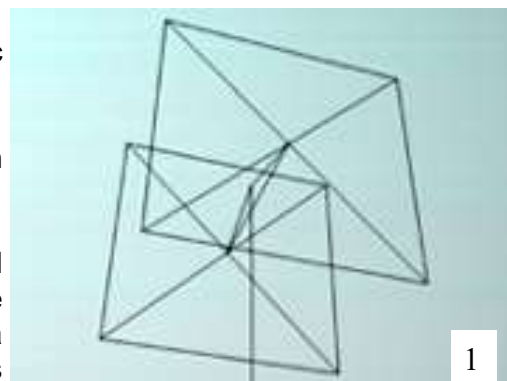
## History

### The quad antenna is a development of several inventions.

\*In 1924, Moses Jacobson patented a loop antenna with rhombic shape.

\*In 1938, George Brown et al. patented a loop antenna with rhombic shape and quarter wave sides.

\*In 1951 Clarence C. Moore, W9LZX, a Christian missionary and engineer at HCJB (a short wave missionary radio station high in the Andean Mountains) developed and patented a two-turn loop antenna which he called a "quad". He developed this antenna to resolve issues caused by large coronal discharges while using a beam antenna in the thin air of higher altitudes. Moore describes his antenna as "a pulled-open folded dipole". While the main point of Moore's patent was the two-turn single loop design, which is not the antenna termed "quad" today, the patent does include a mention and illustration of a two-element unidirectional "quad", and describes the time when the full wave loop concept was developed:



A two-element quad antenna used by an amateur radio station.

*"It is a further object of the present invention to provide a loop antenna having an even number of turns of a length of one or more wave lengths around each turn in which substantially no voltage components are present and the only voltage existing is that due to the impedance between the adjacent loops."*

*"We took about one hundred pounds of engineering reference books with us on our short vacation to Posoraja, Ecuador during the summer of 1942, determined that with the help of God we could solve our problem. There on the floor of our bamboo cottage we spread open all the reference books we had brought with us and worked for hours on basic antenna design. Our prayers must have been answered, for gradually as we worked the vision of a quad-shaped antenna gradually grew with the new concept of a loop antenna having no ends to the elements, and combining relatively high transmitting impedance and high gain."*

Moore's design eliminated interference from coronal discharge. Since its elements have no ends, the "end effect", which among other things leads to corona on an ordinary dipole-based Yagi, is absent in a Yagi made from loops (a quad). But other advantages appeared. The higher impedance mentioned in the quote above translates to lower current and thus lower loss on the transmission lines, and gain is higher than that of a dipole Yagi.

In 1957 James Sherriff McCaig patented what we know as a "cubical" (two-element) multi-band quad antenna.

\*In 1960 Rudolf Baumgartner patented the Swiss quad.

\*In 1969 Werner Boldt invented the DJ4VM quad.

\*In 1971 Hans F. Ruckert invented the "Mono-loop tri-band cubical quad".



## Advantages over a dipole-based Yagi–Uda.

Rigorous testing of the loop Yagi–Uda (quad) antenna show the following advantages over a dipole-based Yagi–Uda antenna made from dipoles:

### Polarization

It is easy to change polarization from vertical to horizontal, by changing the feed point.

Multiband antenna

It is easier to design a multiband quad antenna than a multiband Yagi antenna.

Higher gain

The 2-element quad has almost the same gain as a 3-element Yagi: about 7.5 dB over a dipole. Likewise, a 3-element quad has more gain than a 3-element Yagi. However, adding quad elements produces diminishing returns:

“Whereas parasitic beams having twenty or thirty parasitic directors are efficient, high gain antennas, it would seem that the maximum practical number of parasitic loop elements for the quad array is limited to four or five.” -William Orr.



A 4-element amateur radio quad antenna. The two men working on it show the scale. The wire loops are almost invisible, suspended on the ends of the crossed supports

### Radiation resistance

Radiation resistance is affected by antenna height above ground, element spacing, and environmental conditions. However, values will be higher than for a Yagi and more closely matched to a 50 Ohm coaxial feed.

### Lower boom height

A two-element, three-band quad, with elements mounted only 35 feet above ground, will give good performance in situations where a tri-band Yagi will not.

### Shorter boom

Orr (1996) shows a 10, 15, and 20 meter, 2 element quad with boom length of 6'10".

### Internally stackable

Interaction between antennas of a multiband quad are quite low, even when fed with a single feed line, so higher frequency (smaller) quad loops can be nested in lower frequency (bigger) quad loops, allowing operation on as many bands as there are nested loops.

### Lower radiation angle

According to Root (2008) a false claim has persisted for 50 years that quads “open the band earlier”, which suggests that quads exhibit a lower angle of radiation than Yagis; computer modelling fails to show any such difference. Root proposes that the vertical sides of each element may actually radiate the low angle component.

## Disadvantages compared to other antennas.

### Bandwidth

If tuned for maximum gain, the bandwidth for a 3-element quad antenna is limited: Deviation from the design frequency will unbalance the near-resonance condition of the parasitic elements. However, lengthening the director elements, thereby sacrificing approximately 1dB gain, allows for much broader bandwidth.

### Maintenance

A quad is a 3 dimensional antenna so maintenance can be difficult. Even with a tilt-over tower, tall ladders or a bucket truck may be needed. There are locking mechanisms for work on a cubical quad antenna, rotator, or tower that allow the tower to tilt to the ground: They work by releasing the antenna to swivel out of the way when the mast is lowered. When the mast is raised back to its operational position, the antenna is locked into position (the locking mechanism is powered by gravity).

### The E-Z-O variation

In 2008, Daniel Mills, N8PPQ, designed an antenna that may be an improvement over the quad design. His E-Z-O antenna uses flexible dielectric tubes rather than rigid poles to support the electrical elements. He claims slightly higher gain over the quad due to its roughly circular form.

The claimed magnitude of the dielectric effect on the outside band elements was a surprise, and optimum element lengths were determined by experiment. No reference literature was found: Jefferies & Koulouris (2003) state "As far as we are aware, there has been no reported work on encasing loop antennas in dielectric."



3 element prototype E-Z-O antenna.

**Source:** *Wikipedia.*

**Photo Attributes:**

1. *By Dries Declercq - drawing by Dries Declercq,*
2. *By N8ppq - Own work, Public Domain,*
3. *EZO - By N8ppq - Own work, Public Domain,*



# WSPR PROJECT

## WSPR Beacon update.

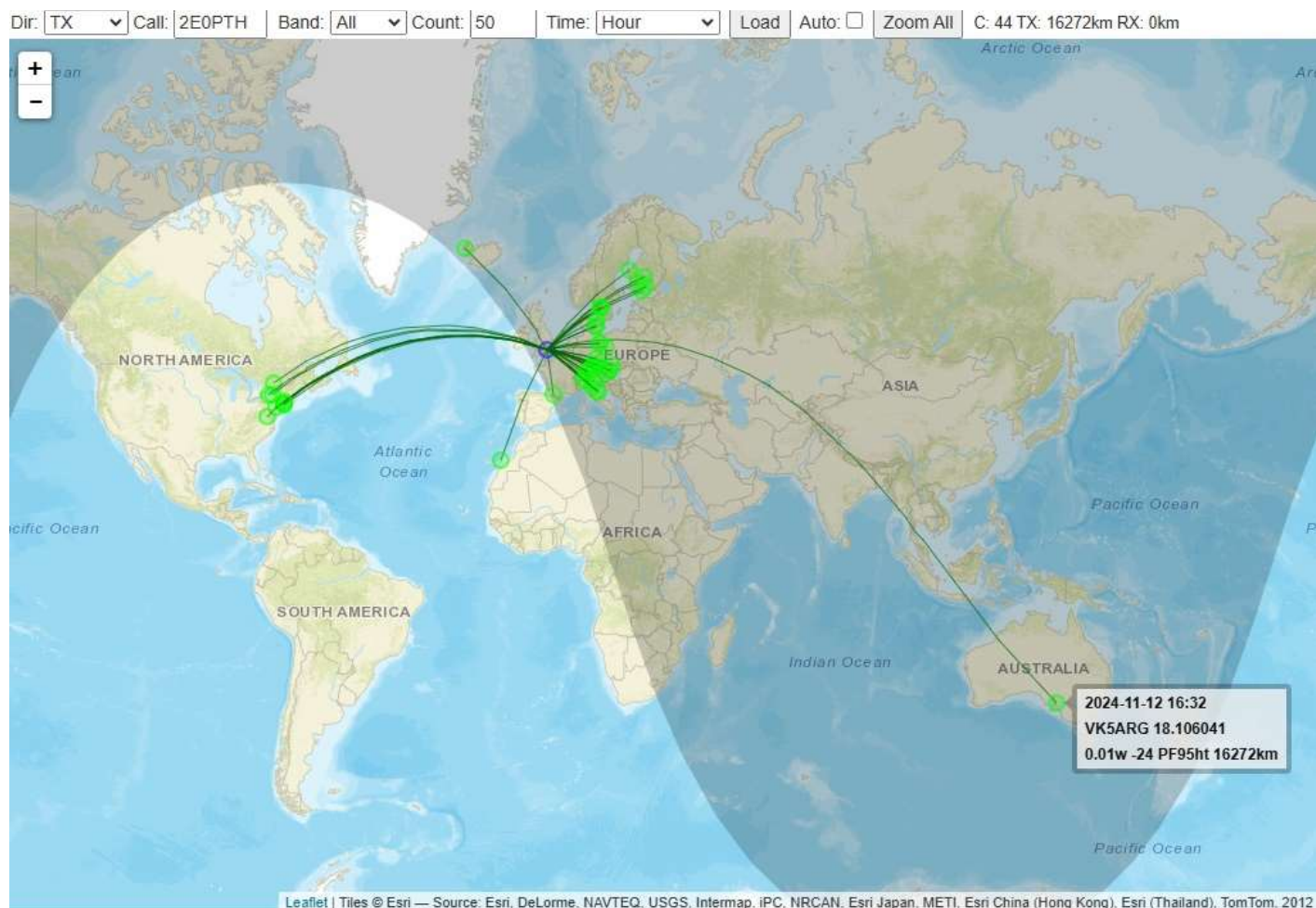
Since building my WSPR Beacon I've added an LED to indicate when the beacon is transmitting as well as a push button to perform a clean shutdown of the operating system.

The problems where Wi-Fi contact was being lost during a transmission seems to be due to the proximity of the low pass filter to the Raspberry Pi board. A short length of ribbon cable may fix the problem.

I was chuffed with the original results, i.e. a couple of contacts in the East Coast of America. That has been surpassed by a contact in Adelaide, Australia; 16,272Km using only 10mW of power!

**Peter 2E0PTH.**

(The full description of the project can be found in the November 2024 newsletter - ED)



# The Annual Inter-Club Quiz.

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Each year at about this time there is an inter-club quiz between CDARS and the Aylesbury Vale Radio Society (AVRS). The term “inter-club” is a bit of a misnomer since it’s not a team quiz, we all compete individually. Historically this used to be a team quiz, but when the numbers in the clubs (and quiz teams) became badly skewed, it was decided to make it an individual event.

CDARS and AVRS take it in turns to host the quiz and to set the questions. And it’s most definitely not a quiz all about amateur radio! The winner is awarded the G6NB trophy, a silver rose bowl owned by AVRS. Roger G3MEH takes up the story of this trophy:

***“Don ‘Bill’ Biltcliffe G6NB, who donated the trophy, was chairman of AVRS for many years. Originally it was awarded to the winner of the AVRS construction contest but as home construction became less fashionable it has instead been awarded to the winner of the inter-club (AVRS/CDARS) quiz.”***

This year’s quiz questions were set by Gerry G7FV of AVRS, and our own Matt G1DTG was the quiz master. A little while ago we decided that whoever won the quiz each year would be the quiz master the following year – to spread things around as it were. Matt won last year, so was in the hot seat this time. He therefore said he took no responsibility for the questions or any contentious answers!

The number of rounds and numbers of questions varies by year, this time there were five rounds covering history, science, geography, natural world and general knowledge with a total of 55 questions.

The top three scorers were:

Malcolm G3ZNU	31 points
Marc G0AZS	27 points
Roger G3MEH	21 points

If you weren’t there but would like to test out your knowledge, here’s some questions to whet your appetite:

**1/. What is a Remoska?**

**2/. Which country has the most islands?**

**3/.Of which island is the main settlement “Edinburgh of the Seven Seas”?**

Answers on page 18.

# The Club Christmas Dinner Quiz.

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Listed below are the questions from the Christmas Dinner Quiz that Malcolm G3ZNU put together. For those that couldn't make it on the night here's your chance to have some fun. And for those that were there it's your chance to show how knowledgeable you are with your family while letting the turkey settle on Christmas Day.

Answers on Page 18.

- 1/. Which country started the tradition of putting up a Christmas tree?
- 2/. How many ghosts show up in Charles Dickens' A Christmas Carol?
- 3/. What Hollywood actor played six different roles in The Polar Express?
- 4/. What's the total number of gifts given in 'The Twelve Days of Christmas' song?
- 5/. In which country is it tradition to eat KFC for Christmas dinner?
- 6/. How many of Rudolph's fellow reindeers' names start with 'D'?
- 7/. In which modern-day country was St Nicholas (on which Santa Claus is based) born?
- 8/. In the 4th century AD, which Roman emperor declared December 25th as the official date for celebrating the birth of Jesus Christ?
- 9/. In which country did the tradition of sending Christmas cards begin?
- 10/. Who tried to make Christmas illegal in England from 1647 to 1660?
- 11/. In what year was the Queen's speech first televised?
- 12/. What is the traditional colour of Santa Claus's suit?
- 13/. How many times does the number 1 appear on an advent calendar?
- 14/. Which Christmas song was originally written for Thanksgiving and later became a popular Christmas tune?
- 15/. Which U.S. state was the first to declare Christmas Day an official holiday?
- 16/. In the song 'The Twelve Days of Christmas' what was the gift given on the eighth day?
- 17/. In the song 'Deck the Halls', how many 'las' are after the 'fa'?
- 18/. Which English King was crowned on Christmas Day?
- 19/. What fruit is used to create a "Christingle"?
- 20/. What beverage company has been using Santa Claus in its advertising since 1931?



## December - VHF

Day	Date (2024)	Time (UTC)	Contest Name
Tue	03 Dec	1900-1955	144MHz FMAC
Tue	03 Dec	2000-2230	144MHz UKAC
Wed	04 Dec	1700-2100	144MHz FT8 AC (4 hours)
Wed	04 Dec	1900-2100	144MHz FT8 AC (2 hours)
Sun	08 Dec	1000-1400	144MHz AFS
Tue	10 Dec	1900-1955	432MHz FMAC
Tue	10 Dec	2000-2230	432MHz UKAC
Wed	11 Dec	1700-2100	432MHz FT8 AC (4 hours)
Wed	11 Dec	1900-2100	432MHz FT8 AC (2 hours)
Thu	12 Dec	2000-2230	50MHz UKAC
Tue	17 Dec	2000-2230	1.3GHz UKAC
Thu	19 Dec	2000-2230	70MHz UKAC
Fri	27 Dec	1500-1700	50MHz Christmas Contest
Sat	28 Dec	1500-1700	70MHz Christmas Contest
Sun	29 Dec	1500-1700	144MHz Christmas Contest
Mon	30 Dec	1500-1700	432MHz Christmas Contest

Day	Date (2025)	Time (UTC)	Contest Name
Sat	04 Jan	1300-1700	RSGB AFS 80m-40m Contests CW
Sun	12 Jan	1300-1700	RSGB AFS 80m-40m Contests Datamodes
Sat	18 Jan	1300-1700	RSGB AFS 80m-40m Contests Phone

## January - VHF

Day	Date (2025)	Time (UTC)	Contest Name
Tue	02 Jan	1900-1955	144MHz FMAC
Tue	02 Jan	2000-2230	144MHz UKAC
Wed	03 Jan	1700-2100	144MHz FT8 AC (4 hours)
Wed	03 Jan	1900-2100	144MHz FT8 AC (2 hours)
Tue	09 Jan	1900-1955	432MHz FMAC
Tue	09 Jan	2000-2230	432MHz UKAC
Wed	10 Jan	1700-2100	432MHz FT8 AC (4 hours)
Wed	10 Jan	1900-2100	432MHz FT8 AC (2 hours)
Thu	11 Jan	2000-2230	50MHz UKAC
Tue	16 Jan	2000-2230	1.3GHz UKAC
Thu	18 Jan	2000-2230	70MHz UKAC
Tue	23 Jan	1930-2230	SHF UKAC

# 2024 Club (Team) Contests

Note: Contests in Bold are Sat or Sat-Sun Contests

## 2024 Club (Team) Contests (i.e. AFS, Championship & CC(s))

*Weekend events in **BOLD** highlight (get clearance from XYL/SM/SWIMBO?)*

Day	Date	Time UTC	Contest Name	Sections	CHAM-SHP
<b>Sun</b>	<b>8 Dec</b>	<b>1000-1400</b>	<b>144MHz AFS</b>	<b>SF, O</b>	<b>CDARS-AFS</b>
Fri	27 Dec	1500-1700	6m Xmas Cumulative	AR, AO, AL	SOLO
<b>Sat</b>	<b>28 Dec</b>	<b>1500-1700</b>	<b>4m Xmas Cumulative</b>	<b>AR, AO, AL</b>	<b>SOLO</b>
<b>Sun</b>	<b>29 Dec</b>	<b>1500-1700</b>	<b>2m Xmas Cumulative</b>	<b>AR, AO, AL</b>	<b>SOLO</b>
Mon	30 Dec	1500-1700	70cm Xmas C'lative	AR, AO, AL	SOLO

## Dates For Your Diary



Listed below are dates of RSGB, UK and International contests for 2024/25.

### **\*\*IMPORTANT DATE FOR YOUR DIARY - CDARS AGM - 25th January 2025\*\***

ARRL 160-Meter Contest - 2200Z, Dec 6 to 1600Z, Dec 8, 2024

ARRL 10m DX Contest - 14th/15th December 2024

Hungarian DX Contest - 1200Z, Jan 18 2025 to 1200Z, Jan 19 2025

European Union DX Contest - 1200Z, Feb 1 2025 to 1200Z, Feb 2 2025

CQ WW RTTY WPX Contest - 0000Z, Feb 8 2025 to 2400Z, Feb 9 2025

Dutch PACC Contest - 1200Z, Feb 8th 2025 to 1200Z, Feb 9th 2025

CQ 160-Meter Contest, SSB - 2200Z, Feb 21st 2025 to 2159Z, Feb 23rd 2025

RSGB Commonwealth (BERU) Contest - 1000Z, Mar 8th 2025 to 1000Z, Mar 9th 2025

Russian DX Contest - 1200Z, Mar 15th 2025 to 1200Z, Mar 16th 2025

BARTG HF RTTY Contest 0200Z, Mar 15th 2025 to 0200Z, Mar 17th 2025

CQ WW WPX Contest, SSB - 0000Z, Mar 29th 2025 to 2400Z, Mar 30th 2025

***Please double check dates, start/end times etc in good time prior to the event.***

**Full details and more contests at:** <https://www.contestcalendar.com/contestcal.html>

# Radio Rally Dates.

Full details of the events are available at: [g4gra.org.uk/All](http://g4gra.org.uk/All) & the RSGB website.

## December 2024

1st - Wiltshire Radio Winter Rally, Kingston Langley, Village Hall, Kingston Langley, Wilts. SN15 5NJ.

8th - Mid-Devon Amateur Radio & Electronics Fair. Winkleigh Sports Centre, Winkleigh, Devon. EX19 8HZ

29th - Sparkford Radio Rally, Davis Hall, Howell Hill, West Camel, Nr Yeovil BA22 7QX.

## January 2025

26th - Lincoln Short Wave Club Winter Radio Rally  
The Festival Hall, Caistor Road, Market Rasen, LN8 3HT.

## February 2025

23rd - Red Rose Winter Rally, Mather Hall, Mather Lane, Leigh, Lancs. WN7 2PJ

*(All information courtesy of [g4gra.org.uk](http://g4gra.org.uk) & the RSGB website)*



**Inter Club Quiz Answers.**

1. A small portable electric oven
2. Sweden (267,570)
3. Tristan da Cunha, a part of British Overseas Territory of St Helena, Ascension and Tristan da Cunha in the South Atlantic ocean.

**Club Christmas Dinner Quiz Answers**

- 1/. Germany
- 2/. Four – Marley, spirits of Christmas past, present and future
- 3/. Tom Hanks
- 4/. 364
- 5/. Japan
- 6/. Three - Dancer, Dasher, Donner
- 7/. Turkey (originally Patara, a city in the ancient district of Lycia, in Asia Minor)
- 8/. Emperor Constantine
- 9/. England
- 10/. Oliver Cromwell, during the English Interregnum
- 11/. 1957
- 12/. In the very first depictions of Santa Claus, his outfit was a tan/brown colour
- 13/. 13
- 14/. Jingle Bells
- 15/. Oklahoma
- 16/. Eight maids-a-milking
- 17/. Eight
- 18/. William 1 (the Conqueror) in 1066
- 19/. An orange
- 20/. Coca-Cola