

# Newsletter

## Chesham & District Amateur Radio Society

[www.g3mdg.org.uk](http://www.g3mdg.org.uk)

May 2022

We meet the 2<sup>nd</sup> and 4<sup>th</sup> Wednesdays of the month at the Ashley Green Village Hall, Ashley Green, HP5 3PP

### Welcome

This and next month are again heavy with the VHF contests, plenty to keep you busy!

I thought for this time of year (the sun is currently shining) that many of you might have a project of some kind or other, why not share your project and make it a newsletter item?

Weather-wise it's been a little up and down this month with a few nights requiring the heating back on for a few hours.

It's Brill weekend on the 7<sup>th</sup>/8<sup>th</sup> of May, details are in the newsletter, why not pop along and see us at the windmill.

Your FTDX10 doesn't come with 60m and 4m activated, use these easy to follow instructions to get these bands activated on your rig.

Thanks go to Malcolm (G3ZNU) for his article on Brill Windmill.

They do say you're never too old to learn and learn I did when investigating our "Getting to know you" star this month!

Bryan M0IHY

### In this issue

- 2 Chairman's Ramble
- 2 Editor's Muse
- 3 FTDX10, activating 60m and 4m
- 4 Brill Windmill
- 6 NVIS Antenna for 80m
- 7 Getting to know you
- 8 Spotlight
- 9 Contest Corner
- 10 Air Miles
- 13 Any other business

### Contact details

Chairman - Jeremy Brown (G3XZG)  
- Guy Plunkett (M0GUY)

Secretary - Malcolm Appleby (G3ZNU)  
- Dave Keston (G8FMC)

Treasurer - Matt Whitchurch (M1DTG)

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

Editor - Bryan Page (M0IHY)

# Chairman's Ramble

Evening all, as its the evening of the 28th April as I am writing this.

Conditions on the bands have been a bit odd this month, at least when I have been on, with a solar flare at one point and for some reason, a very high noise level yesterday across all bands. However, we are getting into summer now and hopefully some sporadic E. 28 MHz has been open to south America, but mainly on data modes, though some CW activity. Some stations from southern Africa also coming in, one regular from Zambia and also a couple from South Africa. The latter have attracted pile-ups, which so far I have not been able to get through. Apparently in really good conditions, South Africa can be contacted on 50 MHz. Well you never know.

Our two meetings this month have involved planning for the Brill windmill event, now only a week or so away, and a talk from John G4CZB, ably assisted by Dave and Malcolm on hints and tips for contesting. Both have been very well attended and thanks to all those who have turned up. Its very encouraging for the committee to know that the programme is well received, but all ideas for future talks and plans are very welcome.

One thing we have been thinking about is what to do on the 5th Wednesday in June, which is only a week after midsummer day.

A possibility is a pedestrian DF hunt, which we have not done for a number of years. This involves someone taking a handheld and secreting themselves somewhere, with everyone else either in teams, a group or individually, trying to find them. the "fox" puts out a transmission about every 5 minutes. very little equipment is needed for this, a handheld, possibly a 2 element beam, (though it also works using the handheld's usual antenna, horizontally), and for those who take it more seriously, an attenuator.

The only badge of honour for the first to find the "fox" is that they get to do it next time, and the hiding place aims to be within a short walk of a pub. Nobody has yet actually hidden in the bar. Let us know what you think on the group.

Talking of programmes, one of John's suggestions was to take part in the QRP CW contest which I think is on the 3rd Sunday in July for 6 hours, with an hour off for lunch. With luck, we could book the hall for this, but again, it would be good to know what support there may be. Once again, thanks to all who have contributed over the month and thanks too, to those who have suggested CW topics for the newsletter. I will hope to start putting something together for next month.

Here's hoping for fine weather at the windmill. But I'm still going to bring a very warm sweater anyway.

73, Jeremy

# Editor's Muse

On the 12th of April I had a QSO with Theo (OT4A) on 40m who was at the time pedestrian mobile, about 4Km from his home and remote controlling his transceiver via his mobile phone, it's fascinating the many ways people use to get on the air, he was making the most of the good weather (22°C and sunny at the time) and operating at the same time.

The National Radio Centre dinner is back on (3<sup>rd</sup> time lucky?), it's set for Wednesday the 25<sup>th</sup> of May, both Angie and I will be attending.

My pump-up mast and all associated equipment has now gone to a good home, after not using it for almost 2 years I couldn't warrant keeping it, if anybody's interested I still have 1 rotatable dipole covering 10m and 6m, made by Innovantenna's it comes complete with a balun.

Bryan M0IHY

# FTDX10, activating 60m and 4m

The FTDX10 doesn't come with 5MHz and 70MHz active, to activate it is quite simple, just follow these steps.

Turn your rig off. (1)

Press and hold the 'Fine' and 'Mode' buttons. (2 & 3)

Turn the rig on. (1)

Release the 'Fine' and 'Mode' buttons. (2 & 3)



The VFO-A indicator will start flashing. (4)



Press the 'FUNC' button (5), VFO-A flashing will decrease.

Press the 'FUNC' button (5) again, the rig will reboot.

You are now able to use the 60m and 4m bands.

- To select 60m, press the 'Band' button and select '5.0'.
- To select 4m, press the 'Band' button and select '70/Gen', on my rig it gave me 15MHz, simply touch the last 3 digits of the frequency on the display (6) and enter the frequency you want via the onscreen keyboard, you're then good to go.



# Brill Windmill

**GB0BWM (Brill Wind-Mill)**  
**(Golf Bravo Zero Bravo Whiskey Mike)**

It is a Grade II listed 'Post-Mill' with 17th century origins (probably about 1680's).

Located on Brill Common, Buckinghamshire, West of Waddesdon Manor - home of the Rothschilds. It is normally open to the public on Sundays from Easter to the end of September.

It has 4 sails 27ft (9m) long and 5ft (1.5m) wide.

A 'Post Mill' is where the whole wooden structure revolves around a central 'Post' to face the wind.

Windmills have been a feature in the Brill area since about 1250, but not on the present site.

Arguably the best preserved (of its type) although the oldest 'Post Mill' is believed to be Pitstone (also in Bucks) built in 1627.

---

Sadly one of the sails was snapped by the storm in October 2021 and rot was discovered in the opposite sail, this means that the Windmill Society are having to raise £20,000 to replace and repair the sails.

Please go to their website for further information.

---

The Radio Society of Great Britain commemorate windmills with an event held annually.

Chesham & District Amateur Radio Society are proud to promote Brill Windmill by operating in the mill, our task is to contact as many other windmills throughout the UK and Europe during this period.

We will be operating on HF (80m, 40m, 20m), VHF (2m) and UHF (70cm).



Our radio club

Scan these codes with your mobile phone for further information



The windmill

# Brill Windmill

## Mills on the Air at Brill Windmill 2022

Mills on the Air is an annual event instigated and lightly overseen by the Denby Dale Amateur Radio Society. It's held on the first full weekend in May, when groups of amateurs across the country set up Special Event Stations in mills of all kinds – windmills, water mills, tide mills.

CDARS has been visiting the windmill at Brill for several years, and will be back there again on Saturday 7th and Sunday 8th May. We missed out in 2020 due to the national lockdown, and in 2019 the windmill itself was being painted. But we were there last year and aim to have a similar setup this year.



Brill windmill is a Grade II listed 'Post-Mill' with 17th century origins (probably about 1680's). Located on Brill Common, Buckinghamshire, West of Waddesdon Manor - home of the Rothschilds. A 'Post Mill' is where the whole wooden structure revolves around a central 'Post' to face the wind.

Windmills have been a feature in the Brill area since about 1250, but not on the present site. Arguably the best preserved (of its type) although the oldest 'Post Mill' is believed to be Pitstone (also in Bucks) built in 1627.

Sadly one of the mill's sails was snapped by the storm in October 2021 and rot has been discovered in the opposite sail, this means that the Windmill Society are having to raise £20,000 to replace and repair the sails.

Our callsign for the event is GB0BWM, and we're planning on having both an HF and VHF station active. For HF we'll be using a TS590SG with one of the club dipoles. On VHF (mainly 2m) we'll use an FT897 just with a vertical, but since the mill is on a lofty site (after all, they need lots of wind!) the coverage is pretty good.

Last year the mill was still closed to visitors, but this year it will be open so we can expect more interest from the general public. We will probably also be asked to show people round the mill itself, but thankfully there are display boards to help with the explanations!

In previous years the mill has been notorious for feeling colder inside than the weather outside. Last year we were also beset with high winds when setting up on the Saturday. Let's hope for warm weather and little wind this time around.

If you have never operated a Special Event Station, do come along and give it a go. Interest levels from amateurs is normally high but large pile-ups are not common, so the pressure to work many stations is not great.



The team in 2021

# NVIS Antenna for 80m

“NVIS, or Near Vertical Incidence Skywave propagation is a form of ionospheric radio propagation that can be used where radio communications links are needed to cover short distances. It fills the gap between line of sight and the longer distance skip type communications that are normally used at HF.”

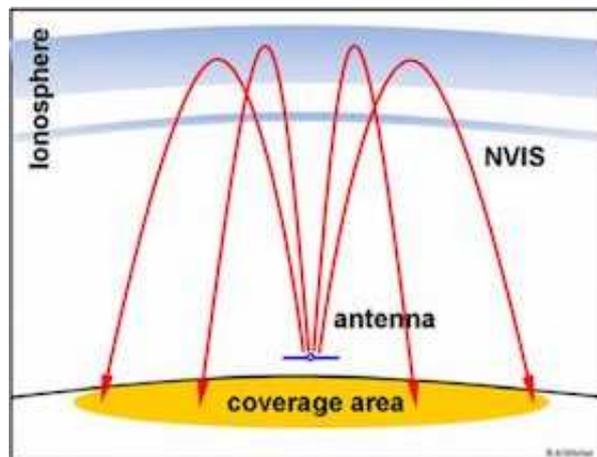
Whilst I can get out to Europe on 80m on my 10m inverted-L vertical I find inter-G contacts almost impossible, what I need is another type of antenna which will get me those contacts, this would be the NVIS antenna.

One of the Intermediate Licence questions I came across lately was this:

A horizontal HF dipole antenna is mounted quite close to the ground. A key effect of this will be to

- A. decrease the angle of radiation
- B. increase the angle of radiation
- C. increase the losses in the feeder
- D. decrease the losses in the feeder.

The answer is “B”, think about it, your signal will virtually go straight up (high radiation angle, 90 degrees, or more) and then bounced back off the ionosphere with a low incidence angle. This method allows reliable communications with a range of approximately 400 miles, which is what I want to achieve.



**A simplistic view of the radiation pattern.**

There are many threads of advice regarding the position of the antenna above ground, from 1/4 wave to 6 feet (2 metres), each giving their own reason.

Vertical RF energy radiated at a low enough frequency is reflected back to earth at all angles. The effect is similar to taking your garden hose with a fog nozzle and pointing it straight upwards. The water coming back down gives you an omni-directional pattern without dead spots. It's a continuous circular radiation pattern coming back down. Since it is omni-directional, dipole orientation is not important.

The higher the angle, the lower the frequency needed to work properly. Therefore lower amateur radio frequencies such as 40 and 80 meters are ideal for NVIS use. NVIS generally requires takeoff angles of 70 degrees or higher. Radio waves directed vertically at frequencies higher than the critical frequency (MUF - maximum useable frequency) pass through the ionized layer out into space.

NVIS antenna's can be bent to suit your installation environment and I wonder whether we could use one in an 80m contest at Ashley Green, it would certainly pull in the 'Inter-G' callsigns.

Bryan M0IHY

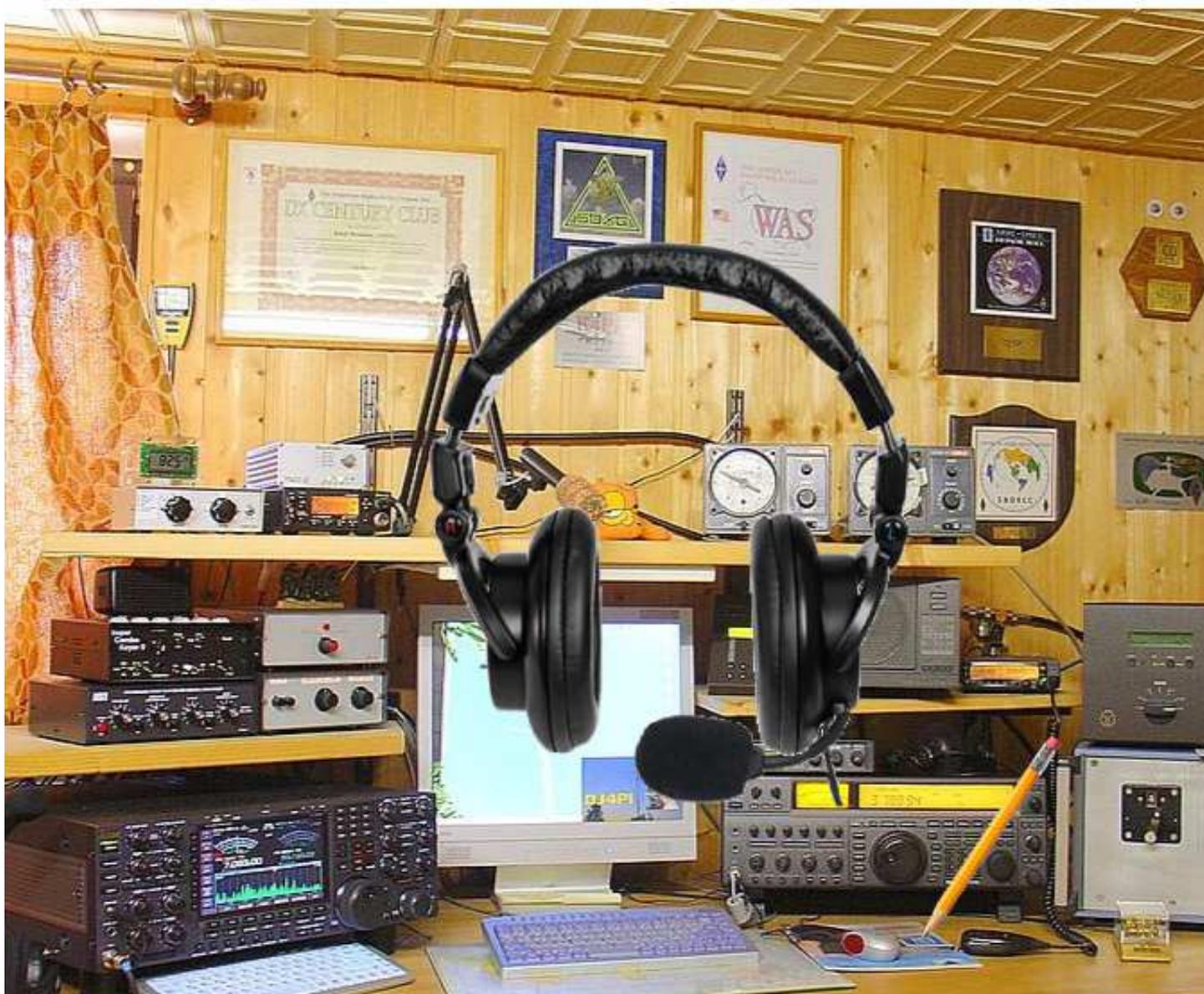
# Getting to know you -

Probably unknown to most, the “Invisible Man” was an avid ham, not as most assumed, as being based on the science fiction novel of the same name by H.G.Wells.

Introduced to Amateur Radio at an early age, he was encouraged by his brother Frankenstein (he was into electronics big time), IM progressed through the licence scheme gaining his Full Licence in no time, the year was 1897.

His shack is of modest design with some of the early valved-equipment, below you can see his shack. Although of some considerable age now, he still likes to keep up with modern technology and can be seen in the picture below sporting a pair of Heil Pro 6 headphones with built in microphone.

Although proficient in Morse code (from the ‘old’ days (1907) on his Spark-gap transmitter) he quite enjoys dabbling in both FT8 and phone, he can be heard occasionally on 80m, his favourite band.



**One of those rare occasions when he's been seen operating, with his freshly sharpened pencil, he's taking details of a QSO on 80m.**

Why not try make contact with him, it'll certainly go down well with the Amateur fraternity, earning you a few bonus points amongst your 'mates', not many have 'bagged' him in their logbooks!

73s and over to you IM...



# Contest Corner

## May

### HF

Day	Date (2021)	Time UTC	Contest Name
Mon	09 May	1900-2030	80m CC SSB
Wed	18 May	1900-2030	80m CC DATA
Thu	26 May	1900-2030	80m CC CW
Mon	30 May	1900-2030	RSGB FT4 Contest

### VHF

Day	Date (2021)	Time UTC	Contest Name
Tue	03 May	1800-1855	144MHz FMAC
Tue	03 May	1900-2130	144MHz UKAC
Wed	04 May	1900-2100	144MHz FT8 AC
Sat	07 May	1400-2200	432MHz Trophy Contest
Sat-Sun	07-08 May	1400-1400	May 432MHz-245GHz Contest
Sun	08 May	0800-1400	10GHz Trophy Contest
Tue	10 May	1800-1855	432MHz FMAC
Tue	10 May	1900-2130	432MHz UKAC
Wed	11 May	1900-2100	432MHz FT8 AC
Thu	12 May	1900-2130	50MHz UKAC
Sun	15 May	0900-1200	70MHz Contest CW
Tue	17 May	1900-2130	1.3GHz UKAC
Thu	19 May	1900-2130	70MHz UKAC
Sat-Sun	21-22 May	1400-1400	144MHz May Contest
Sun	22 May	1100-1500	1st 144MHz Backpackers
Tue	24 May	1830-2130	SHF UKAC
Sun	29 May	1400-1600	70MHz Cumulatives #3

## June

### HF

Day	Date (2021)	Time UTC	Contest Name
Sat-Sun	04-05 Jun	1500-1500	NFD
Mon	06 Jun	1900-2030	80m CC DATA
Wed	15 Jun	1900-2030	80m CC CW
Thu	23 Jun	1900-2030	80m CC SSB
Mon	27 Jun	1900-2030	RSGB FT4 Contest

### VHF

Day	Date (2021)	Time UTC	Contest Name
Wed	01 Jun	1900-2100	144MHz FT8 AC
Tue	07 Jun	1800-1855	144MHz FMAC
Tue	07 Jun	1900-2130	144MHz UKAC
Wed	08 Jun	1900-2100	432MHz FT8 AC
Thu	09 Jun	1900-2130	50MHz UKAC
Sun	12 Jun	0900-1300	2nd 144MHz Backpackers
Tue	14 Jun	1800-1855	432MHz FMAC
Tue	14 Jun	1900-2130	432MHz UKAC
Thu	16 Jun	1900-2130	70MHz UKAC
Sat-Sun	18-19 Jun	1400-1400	50MHz Trophy Contest
Tue	21 Jun	1900-2130	1.3GHz UKAC
Sun	26 Jun	0900-1200	50MHz Contest CW
Sun	26 Jun	1400-1600	70MHz Cumulatives #4
Tue	28 Jun	1830-2130	SHF UKAC

# 'Air Miles', how far have we gone? / results

Welcome Ant to Air Miles.

The QSO count is not as high this month, maybe because the better weather is about, I know from my perspective Angie has jobs for me to do in the garden and it's nice being outdoors.

My thanks to those participating for ensuring their logs were error free, it's surprising how much is involved in getting the data right and this month I've spent 0 time correcting things, thank you.

So, how have we done?

(Running totals in red)

## General

### Most Miles

G3ZNU		381,463	435,723	
G3XZG		58,271	249,097	
2E0GUB		14,142	14,142	
M7SMI		0	2,275,486	

### Most QSO's

G3ZNU		79	141	
G3XZG		28	119	
2E0GUB		19	19	
M7SMI			1,696	

### Longest QSO

G3ZNU		YB9BCS(7770)	YB9BCS(7770)	
G3XZG		XQ6XF(7707)	XQ6XF(7707)	
2E0GUB		IT9GSZ(1217)	IT9GSZ(1217)	
M7SMI			ZL1VAH(11428)	

### Shortest QSO (miles)

G3XZG		G0SWU(22)	G0SWU(22)	
2E0GUB		G3YXZ(35)	G3YXZ(35)	
G3ZNU		E72OZ(1030)	G0ODQ(19)	
M7SMI			G0BLQ(28)	

### Average per QSO (miles)

G3ZNU		3,090	4,828	
G3XZG		2,093	2,081	
2E0GUB		744	744	
M7SMI			1,664	

### Maidenhead Squares

G3ZNU		63	97	
G3XZG		24	100	
2E0GUB		15	15	
M7SMI			631	

## QSO Economy Drive

### High miles per Watt

G3ZNU		77.70(100)	77.70(100)	
G3XZG		77.07(100)	77.07(100)	
2E0GUB		24.34(50)	24.34(50)	
M7SMI			1142.80(10)	

### Low miles per Watt

G3XZG		0.22(100)	0.22(100)	
2E0GUB		1.75(20)	1.75(20)	
G3ZNU		10.30(400)	0.05(400)	
M7SMI			2.80(10)	

## By Band

### 160m

### 30m

### 12m

### 2m

G3XZG		1	15	
M7SMI			313	

2E0GUB		2	2	
G3XZG		1	4	

G3ZNU		29	
-------	--	----	--

### 80m

### 20m

### 10m

### 70cm

M7SMI		11	
G3ZNU		3	

2E0GUB		12	12	
M7SMI			401	
G3XZG			34	
G3ZNU			5	

G3ZNU		77	77	
G3XZG		3	3	
M7SMI			26	

2E0GU		2	2	
G3ZNU			9	

### 60m

### 17m

### 6m

### 23cm

G3XZG		9	24	
M7SMI			47	
G3ZNU			10	

### 40m

### 15m

### 4m

G3XZG		10	16	
2E0GUB		2	2	
M7SMI			1,381	
G3ZNU			1	

G3XZG		4	23	
G3ZNU		2	7	
2E0GUB		1	1	
M7SMI			143	

# 'Air Miles', how far have we gone? / results

## By Mode

### CW

G3XZG		28	119	
G3ZNU		3	3	

### FT8

G3ZNU		76	122	
M7SMI			1,687	

### MFSK

M7SMI			9	
-------	--	--	---	---

### SSB

2E0GUB		17	17	
--------	---	----	----	---

### FM

2E0GUB		2	2	
--------	---	---	---	---

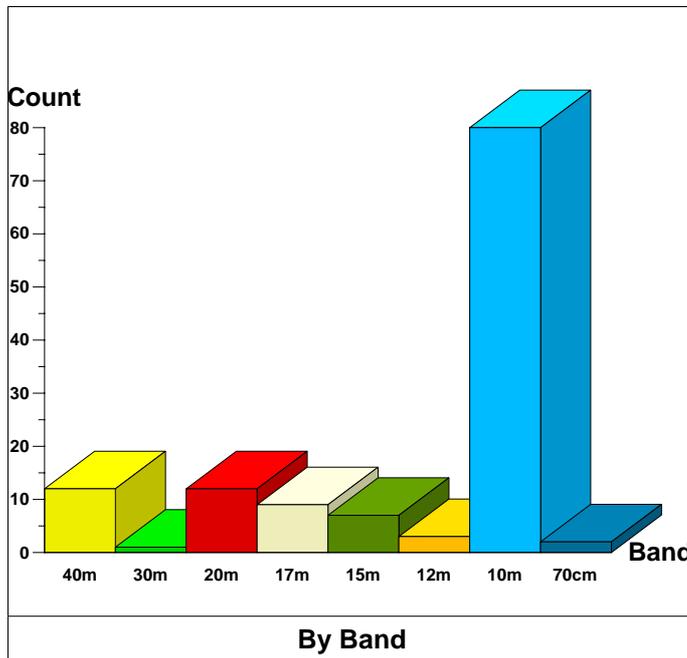
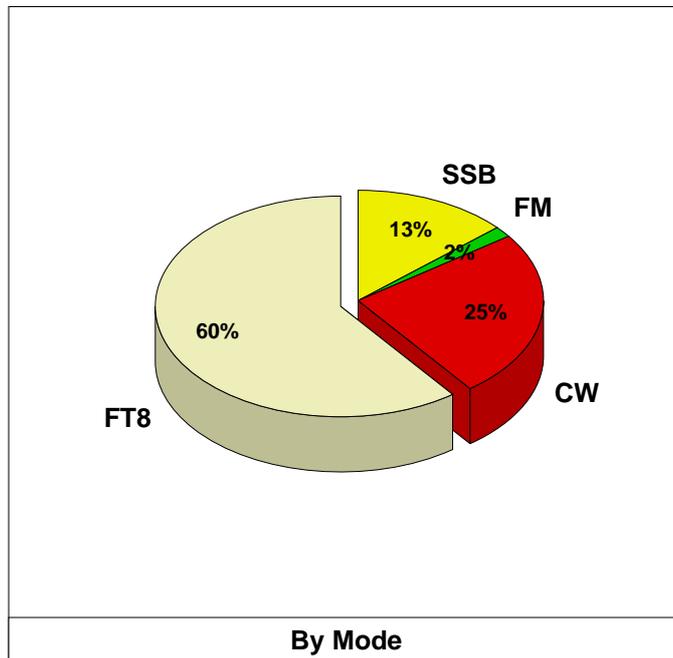
## By Country

G3ZNU		18	31	
G3XZG		16	39	
2E0GUB		9	9	
M7SMI			80	

Countries visited	-	37
Most visited Country	-	Bosnia and Herzegovina England Germany Italy Mexico United States all 2 times
Total Mileage	-	453,876
Total QSO's	-	2,601
Average miles per QSO	-	174.5
Total locators visited	-	100
Most visited locator	-	GG66 5 times

# 'Air Miles', February at a glance

*This month at a glance (accumulative)*



No pretty display this month, far too crowded requiring a magnifying glass to see the results!

Brazil	25	Denmark	1
United States	23	Belgium	1
Italy	8	Kazakhstan	1
Russia	8	Kuwait	1
England	8	Belize	1
Argentina	5	France	1
Indonesia	4	Norway	1
Ecuador	3	Oman	1
Germany	3	Romania	1
Uruguay	3	Armenia	1
Israel	2	Slovenia	1
Bosnia and Herzegovina	2	Azerbaijan	1
Mexico	2	Suriname	1
Netherlands	2	United Arab Emirates	1
Greece	2	Chile	1
South Africa	2	India	1
Hungary	2	Belarus	1
Croatia	2	Wales	1
Venezuela	2		

# Any other business