

# Newsletter

## Chesham & District Amateur Radio Society

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

July 2021

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

Let me start by apologising for last months 'blooper' by calling Jeremy 'Jeremey' in the heading regarding his certificate in the Irish Radio Transmitters Society contest, more of a senior moment methinks!

Initially I had decided to comment on the fact the good weather had started again when all of a sudden we dipped into miserable weather, and then it improving again, and finally we almost got drenched on VHF NFD, talk about a yo-yo effect!

We've had one meeting at the club where we had 2 transmitters on the go, Guys rather nice Icom IC-705 outside and the clubs Yaesu FT897D inside and even though the 21st June deadline has been moved back to the 19th July I feel we'll be able to continue meeting at the club while the weathers good.

Although the daily reported new cases of corona virus are climbing again, hospital admissions are not increasing as they did before, hopefully this is an indication that things are on the mend and we should be able to show our "Normal transmission will be resumed shortly" card (can you remember those days of the test card at the end of the day?).

As there are no HF contests in August can anybody think of something we could do HF-wise in the interim?

Bryan M0IHY

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### Contact details

Chairman - Jeremy Browne (G3XZG)      Secretary - Malcolm Appleby (G3ZNU)  
Treasurer - Matt Whitchurch (M1DTG)      Editor - Bryan Page (M0IHY)      Angie Page (M6WTL)

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

# Chairman's Ramble

June has seen contests on 50 MHz, firstly the 50 MHz trophy, with lots of sporadic E and great conditions, and then last Sunday, the 50 MHz CW contest, with no sporadic E at all. Guess which one I entered. All I can say is that G3MDG got an outing and I was heartily glad of the recorded CQ call.

I can only hope that conditions are better for VHF field-day, which the club is entering with a little help from our friends, for the first time in some years.

One of the stipulations for using the field in Wiggington is that we cause no interference to TV or radio reception, particularly as there will be football on Saturday. England have just beaten Germany as I write, so I think will be in one of those games. My response was that we would not cause any interference, but for myself, given the choice between watching football in the summer and interference with reception, I'd take the interference every time. I kind of think of a football tournament in the summer a bit like an unwelcome guest. You know you should pay it some attention, but would really rather it was not there at all. Yes I know I'm harrumphing in a corner.

Unfortunately Covid restrictions were not lifted on the 21st June, so we were not able to hold a meeting at Ashley Green on the 23rd as planned. We were able to view the Harrow talk given by Dr. John Rogers, MOJAB on the most recent state of play with Ofcom and EMF. These regulations have now come into force and there is a variable time within which records must be created and kept, depending on the frequencies on which the antennas operate. The first deadline is November this year.

We did meet at Ashley Green on the 9th June, with a station outside on HF and inside on 2M FM. Both stations went well, but the general conclusion is that the site is a better HF location, as it is just below the brow of the ridge so that VHF directions are limited. Still, good QSO's were had on both. We intend to run the 80M SSB club calls contest from there on the 14th July, and with the restrictions likely to be lifted on the 19th, hope that we will be able to meet there again on the 28th, for a talk by Guy.

Once again, many thanks to all who have helped to make these meetings possible. If they can have 40,000 people at Wembley, I'm sure we could have a dozen or so in a hall at Ashley Green.

But I must not start grumbling about football again.

73, Jeremy.

# Editor's Muse

Thanks Jeremy, I understand about football (maybe I'm an old grump too), give me cricket any day!

The weather is quite indeterminate, one minute it's too hot, the next it's cold and wet, truly British summer weather!

With the government moving the June 21st deadline back a little it would seem we're making progress with getting on top of COVID-19 and hopefully by the end of July we'll be more in a position to hold meetings at the Ashley Green village hall on a regular basis.

The newsletter is a little late this month, for 2 reasons, 1 - I've been very busy in rewriting my PHP scripts on the PC into BBC Basic on my ARMX6 computer (not Windoze, did I hear someone cringe there?), the whole purpose of this task was to make the processing of logs and data generated much slicker and faster (yes, BBC Basic is remarkably fast) and 2 - we have the VHF field day to cover, which will end up adding more content to the newsletter.

Bryan M0IHY

The “Magic Band” seems to have lost its oofle dust.

I know I’m old but I like to think I am willing to embrace new technologies and trends. Some, however, concern me, just a little bit. The almost wholesale migration to FT8, even during sporadic E openings, is very much a double edged sword. On one hand it allows stations with modest equipment and antennas to contact stations that with non-digital modes could only be dreamed about whilst there are now far fewer stations using SSB and CW so the authorities are now starting to question if the Amateur Service really requires a 2 MHz allocation when activity is largely contained in little more than 20 KHz.

The historic battle to gain an Amateur allocation at 50 MHz was hard fought and that it may be in jeopardy does not fill me with joy. (Stand by for a rant). I think in view of the “digital revolution” we may also now need to better define exactly what a QSO is. For me, a QSO should require some form of operator input whether it be by talking, manipulating a Morse key or listening. FT8 requires none of these and therefore they are not QSOs they are contacts – your computer has had a conversation with another computer nothing greater or less.

So we should be realistic and honest. If you contact a station in North America using FT8 you have not “worked” them or had a “QSO” with them, for me it would be a bit of a hollow victory. Now dig them out of the grass and swap locator and other information by SSB or even analogue digital (CW), that’s a QSO!

Even during a sporadic E opening there are now far fewer stations using SSB and CW while the FT8 waterfall is “wall to wall”.

David G8LZE

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Thanks for your thoughts David.

Last months statistics showed a marked increase in 6m activity, mainly from Malcolm (G3ZNU), it was however on FT8 (sorry to pour salt on the wounds!).

I suppose your thoughts will only be realised if and when the band allocation is reduced,

At the end of the day, whilst I totally agree with you, people are allowed a choice and it seems they’ve opted for FT8, maybe the mindset of the average amateur has changed, whereas years ago (yes I’m in the ‘old’ category too!) it was an achievement to work amateurs across the world, now it’s like collecting the cards you used to get in cigarette packets, digging deep into the QRM and QSB to work that one station is an art that appears to have passed us by. I believe FT4 is the ‘new kid on the block’ with even faster QSO’s.

I have often seen references to the Olivia digital mode where they keep changing frequencies because they’re being ‘stamped on’ by FT8, the real issue here is not enough people are using Olivia and changing calling frequencies is not the answer, however, more people using it is. One good point that came out of the Olivia email group was that if “**you don’t use it, you’ll lose it**”, this is true of any mode.

Whilst I’ve mentioned this before, JS8Call is an FT8 derivative, its main difference is it’s ‘conversational’, keyboard to keyboard with 4 transmission speeds to suit conditions, I have yet to make that ‘elusive’ U.S.A. contact, but I’ve made a few European ones.

As a closing note, does anybody consider that we may just have too many digital modes?

Bryan M0IHY

# QRM Eliminators

I've at last been able to test the QRM Eliminators in my possession, the initial setup was as follows:

1. Connect the remote socket on the rig to the control plug on the QRM Eliminator.
2. No antenna's connected to the QRM Eliminator, they remained connected to the rig.
3. Turn the QRM Eliminator on and listen for an audible 'click' thereby indicating the antenna relays had energised.
4. Key up the transmitter and listen for the relays dropping out thereby putting the antenna connections on the QRM Eliminator in 'straight through' mode. An additional test was to measure the resistance between the 'Transmitter' and 'Main' antenna centre pins, this should be a short circuit when the relays drop out.

Only when the above had been completed was I happy to connect antenna's to the QRM Eliminators.

The clubs QRM Eliminator fell at point 4, the control circuit must be faulty and that's where I stopped testing, anybody interested in trying to fix it, please let me know.

The relays dropped out when I keyed up on the unit I built, I was able to proceed with testing. When using WSJT-X, or JS8Call I noted 2 signals 2KHz apart on their waterfalls, this was not apparent when the shack was downstairs so must be interference from something upstairs, or from a neighbour, this I thought would be a good test bed, that was until I turned the rig on and selected the software, the interference, which has been here since moving the shack upstairs has gone!!

An anomaly, which I found strange, was that the clubs unit has 2 phase controls, and one gain control, whereas the unit I built has 2 gain controls and 1 phase control.

Both units attenuated the signal, the clubs one by about 50dB on the WSJT-X scale, whilst my one by around 20dB.

Overall I was unable to test the QRM Eliminators fully for lack of QRM! I've seen many comments regarding these units, many for, many against, the jury seems to be out on this one!

I'll return the club unit and will continue to test my unit during the following months.

Bryan M0IHY

## QRP - is this the way forward?

After much head scratching regarding the latest Ofcom calculator I've decided to operate at 5W ERP (that's 8.2W EIRP) when using my vertical and my neighbours are in their gardens, but increasing power (if I need to) when they're not.

My cobweb and VHF/UHF antenna's are fine and I can operate at up to 100W and still be within limits - problem solved...

Although Ofcom have indicated limits for 10MHz and up we have yet to establish what limitations will be made on 7MHz and below, it will be interesting to see what they are.

After watching the video presentation on EMF at our last Zoom meeting I decided to start the ball rolling by mapping out my antenna's and detailing in the exclusion zones to show I'm aware of the ruling, this is in readiness for when we have to document what we've done, maybe something we should all do?

Bryan M0IHY

# Antenna Matching

I subscribe to “The Spectrum Monitor”, a monthly online magazine covering “Amateur, Shortwave, AM/FM/TV, WiFi, Scanning, Satellites, Vintage Radio and more”, predominately American it gives a comprehensive look at all things Amateur Radio over the years since the year ‘dot’, in my opinion a worthwhile subscription.

In this month’s edition is an article on “Finding the Right Match” written by Robert Gulley (K4PKM) which explains the various ways of matching antenna’s. He then goes on to describe programs to help you model various forms of matching and he quotes “An interesting program that can help model various forms of matching is the freeware program YagiCAD by Paul McMahon VK3DIP. He describes the program: “YagiCAD is a fully integrated analysis and design package primarily intended for VHF Yagi aerials. With YagiCAD it is possible to enter a base design from scratch or use one of a number of saved well known designs. This design can then be optimized or scaled to suit particular requirements. Once this has been done a matching unit can be estimated and overall performance characteristics can be calculated and displayed graphically. Also available are radiation patterns and hardcopy print-out of results. Allowances in an analysis can also be made for element cross sections other than simple circular ones, as well as boom mounting techniques.”, YagiCAD can be found at <https://www.yagicad.com/>.

Robert then goes on to discuss another set of helpful programs, “Another interesting program for estimating a gamma match is GAMMA by VE3SQB which is also freeware (along with a wealth of great information and antenna designs). The screen shot of the program start-up includes a great graphic depicting three different methods of creating the gamma match, along with suggestions for modifying the designs for use with Quads. While all computer modeling programs are estimates at best, when using the matching function of the program it is important to remember that the measurements are truly starting points and nothing more. However, using the program and studying the supplied examples can be quite instructive for one’s own designs. Gamma matches work best in the HF frequency range where losses are minimal as compared to VHF and UHF frequencies. This is not to say a gamma match cannot be used at VHF ranges, but there are likely better solutions, especially when moving up into the 440 MHz range.” VE3SQB’s website is at <https://www.ve3sqb.com/> and contains various (many) design programs for Standard Quads, Quads for HF and VHF, Coaxial dipole (bazooka), loaded dipole, Yagi’s, Verticals, Quagi’s, Discone’s, J Poles, Sky Hoppers, Parabolic Antenna’s, to name but a few.

Whilst this is not a “how to do it” article, I feel you may gain something by looking at these programs.

Bryan M0IHY

# VHF Field Day

## Long grass and short skip

It is some years since the Chesham club entered VHF field day, as it takes a lot of people and equipment to run all the possible stations. However, this year we decided that we could put in an entry limited to 144, 50 and 70 MHz.

The field we used is 215 metres A.G.L. and has good take-off, though more limited to the north. It also has a lot of waist-high grass, as it is normally cut for hay around the end of July. Disadvantages of this become clear when it gets wet and Wellies were certainly advisable on Sunday. Advantages include it being somewhat softer to sleep on if staying overnight in a tent.

### First the technical bit.

On 144 MHz we used an IC9700 with 100 watts and a 9 element Powabeam at 10 metres. For 50 MHz we used a TS590SG, again with 100 watts, with an IC7300 and 50 watts on 70 MHz. The antenna was a 50/70 MHz beam, with 3 elements on 50 MHz and 4 elements on 70, again at 10 metres.

Looking at the weather forecast at the beginning of the week, it seemed as though we were in for the meteorological equivalent of an apocalypse, but in fact the weather stayed dry for the working party on Friday who tested guying, raising and lowering the poles, and apart from one shower, Saturday also stayed dry.

The most difficult part of setting up proved to be erecting the club tent, which seemed to have more poles than necessary, and some with some rather odd shapes, whose use and positioning was not immediately obvious. Still, everything went up and we were on air in time.

Throughout the contest, progress was slow and there was little sign of sporadic E, though we did seem to have an opening to Lithuania on 50 MHz.

Overall the contest did not seem very well supported in the UK, and with some clubs not entering because of the pandemic, this was a little disappointing, as it should have meant that the amateurs who might have formed part of their club's entry, were on the air giving points to others.

Sadly we were asked to shut down for a couple of hours on Saturday evening, to accommodate residents watching the football, though from the scores that people were giving when we resumed, we had not missed much. We also took the chance to get something to eat, and succumbed to listening to the game as well.

Sunday proved much wetter, though breakfast provided by G3MEH was very welcome.

At times the rain drumming on the tent drowned out reception, but thankfully the heavy showers were short-lived and the wet grass dried quickly.

Activity remained slow on the bands, but given the conditions, we felt by the end that we had put in a creditable performance and had enjoyed the weekend.

After the last 16 months, it made a very pleasant change for all to be able to put the event on and spend time doing what amateurs do best, standing around and chatting.

Taking the club tent down was much easier than putting it up and the heavy rain did not come back until we were nearly loaded up.

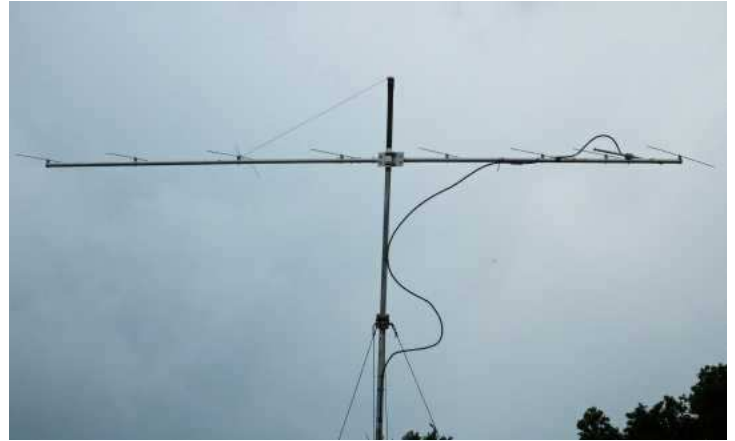
Many thanks to Dave G8FMC who bore the brunt of the organisation, and to all those who helped in taking equipment to and from the site, setting up and taking down, providing last-minute things that we had not brought, operating and generally giving moral support.

Jeremy, G3XZG

# VHF Field Day



1. The first antenna to be erected, a 2m yagi, courtesy of G8FMC.



2. G8FMC's 9 element G4CQM Powabeam



3. The 2m Control Centre



4. Dave (G8FMC), Phil (M0NVS), Dave (G1MZD) and John (G0ODQ), the 2m tent is in the background.

# VHF Field Day



5. James (M0JCQ), Jeremy (G3XZG), Dave (G8FMC), Phil (M0NVS), Dave (G1MZD) and John (G0ODQ) about to raise the 6m/4m yagi.

The first thing to do was raise the antenna's, this was made far easier by the sterling work carried out by Dave (G8FMC) and his helpers on Friday, fortunately for all concerned Dave's preliminary work had prevented people being caught out in the rain.



6. Thanks to Angie for this picture, the 6m/4m Control Centre, many hands make light work?





7. 4m/6m antenna was a PA5070-7-3 (Dual-band with 3 elements on 6m & 4 elements on 4m) from Antennas-Amplifiers of Serbia, courtesy of Roger (G3MEH).

# VHF Field Day



8. Matt (M1DTG) operating James (M0JCQ) Icom 7300, the club TS590SG is underneath.



9. The 7300 with carry handles.

# VHF Field Day



10. James (M0JCQ) Lenovo ThinkPad as the QSO logger.



11. Jeremy (G3XZG) being shown the 'ropes' by Matt (M1DTG)

We missed the bad weather forecast for Saturday, we did however make up for it on Sunday as we were breaking camp, fortunately we had packed most things away before the torrential rain happened, although Dave (G8FMC) did have to air his car out on Monday due to wet seats and carpet!

Overall I think the weekend went well and am hopeful the event will be better supported as we move forward.

Bryan M0IHY

## July HF

Day	Date (2021)	Time UTC	Contest Name
Mon	05 Jul	1900-2030	80m CC CW
Wed	14 Jul	1900-2030	80m CC SSB
Sun	18 Jul	0900-1600	International Low Power Contest
Thu	22 Jul	1900-2030	80M CC Data
Sat-Sun	24-25 Jul	1200-1200	IOTA Contest
Mon	26 Jul	1900-2030	RSGB FT4 Contest

## VHF

Day	Date (2021)	Time UTC	Contest Name
Sat-Sun	3-4 Jul	1400-1400	VHF NFD
Sun	04 Jul	1100-1500	3rd 144MHz Backpackers
Tue	05 Jul	1900-1955	144MHz FMAC
Tue	05 Jul	2000-2230	144MHz UKAC
Wed	06 Jul	1900-2100	144MHz FT8 AC
Tue	12 Jul	1900-1955	432 MHz FMAC
Tue	12 Jul	2000-2230	432 MHz UKAC
Thu	14 Jul	2000-2230	50MHz UKAC
Sat	17 Jul	1400-2000	70MHz Trophy Contest
Tue	19 Jul	2000-2230	1.3GHz UKAC
Thu	21 Jul	2000-2230	70MHz UKAC
Tue	26 Jul	1930-2230	SHF UKAC
Sat	31 Jul	1400-1800	4th 144MHz Backpackers
Sat	31 Jul	1400-2000	144MHz Low Power Contest

## August HF

Day	Date (2021)	Time UTC	Contest Name
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Contest holiday, we'll be back in September

## VHF

Day	Date (2021)	Time UTC	Contest Name
Tue	03 Aug	1900-1955	144MHz FMAC
Tue	03 Aug	2000-2230	144MHz UKAC
Wed	04 Aug	1900-2100	144MHz FT8 AC
Tue	10 Aug	1900-1955	432MHz FMAC
Tue	10 Aug	2000-2230	432MHz UKAC
Thu	12 Aug	2000-2230	50MHz UKAC
Tue	17 Aug	2000-2230	1.3GHz UKAC
Thu	19 Aug	2000-2230	70MHz UKAC
Tue	24 Aug	1930-2230	SHF UKAC

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

FT8 has resumed its position at No. 1 this month, followed by MFSK, SSB seems to have fallen by the side. The bands of the month are 20m and 6m, things appear to be looking up.

James has taken the lead this month, well done.

So, how have we done this month?

(Running totals in red)

## General

### Most Miles

M0JCQ		1,641,671	2,914,100	
G3ZNU		154,000	717,302	
G3XZG		57,608	454,527	

### Most QSO's

M0JCQ		526	1,404	
G3ZNU		160	695	
G3XZG		61	306	

### Longest QSO

M0JCQ		VK6LC(14540)	VK6LC(14540)	
G3XZG		JA3MIX(5878)	VK4DX(10286)	
G3ZNU		HI3T(4305)	YB1BML(7316)	

### Shortest QSO (miles)

G3ZNU		M0JCQ/P(13)	G4WJS(7)	
G3XZG		M0AAX(28)	G4UZE(8)	
M0JCQ		2E0YML(47)	G3MEH(0)	

### Average per QSO (miles)

M0JCQ		3,121	2,076	
G3ZNU		962	1,032	
G3XZG		944	1,485	

### Maidenhead Squares

M0JCQ		288	780	
G3ZNU		108	407	
G3XZG		50	262	

## QSO Economy Drive

### High miles per Watt

M0JCQ		145.40(100)	116.69(100)	
G3XZG		58.78(100)	102.86(100)	
G3ZNU		43.05(100)	73.16(100)	

### Low miles per Watt

G3ZNU		0.13(100)	0.07(100)	
G3XZG		0.28(100)	0.08(100)	
M0JCQ		0.47(100)	0.03(100)	

## By Band

### 30m

G3XZG		3	53	
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### 15m

M0JCQ		23	29	
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### 6m

G3ZNU		160	516	
M0JCQ		76	189	
G3XZG		51	110	

### 20m

M0JCQ		274	665	
G3XZG		1	112	
G3ZNU			35	

### 12m

M0JCQ		27	31	
G3XZG		1	3	

### 17m

M0JCQ		114	205	
G3ZNU		44		
G3XZG		10		

### 10m

M0JCQ		12	13	
G3XZG		5	10	
G3ZNU			1	

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





## By Mode

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### CW

G3XZG		61	306	
G3ZNU		9	25	





### FT8

M0JCQ		279	600	
G3ZNU		114	592	

### SSB







G3ZNU		37	76	
M0JCQ		13	268	

### MFSK

M0JCQ		234	536	
G3ZNU			2	

## By Country

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M0JCQ		65	219	
G3ZNU		34	154	
G3XZG		21	126	

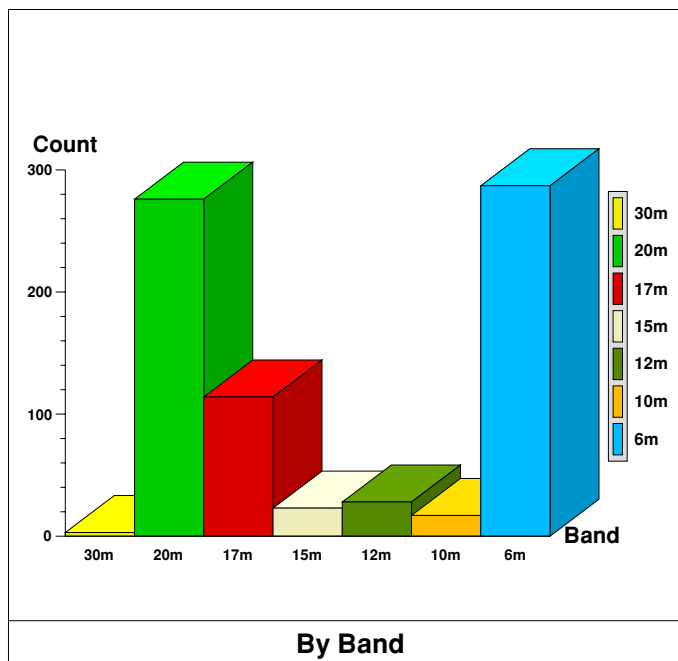
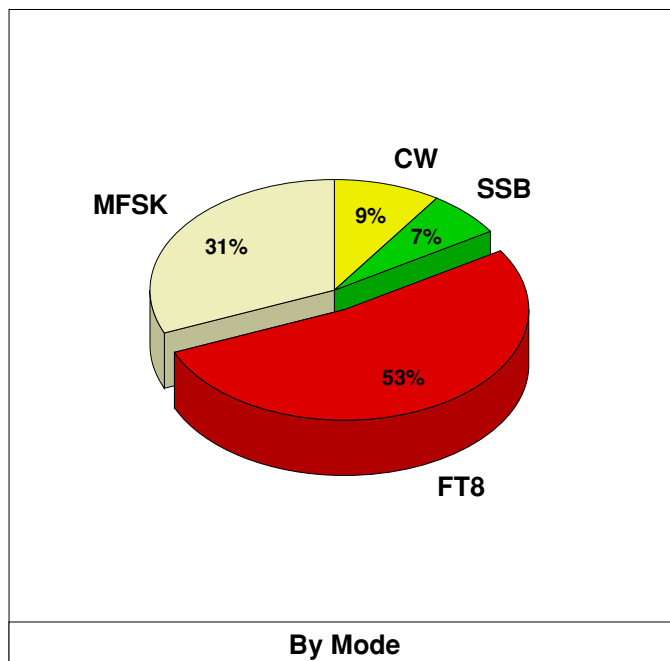
## This month's totals

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Countries visited	-	75
Most visited Country	-	Germany - 80 times
Total Mileage	-	1,853,879
Total QSO's	-	748
Average miles per QSO	-	2,478.45
Total locators visited	-	357
Most visited locator	-	PM74 12 times

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

## This month at a glance (accumulative)

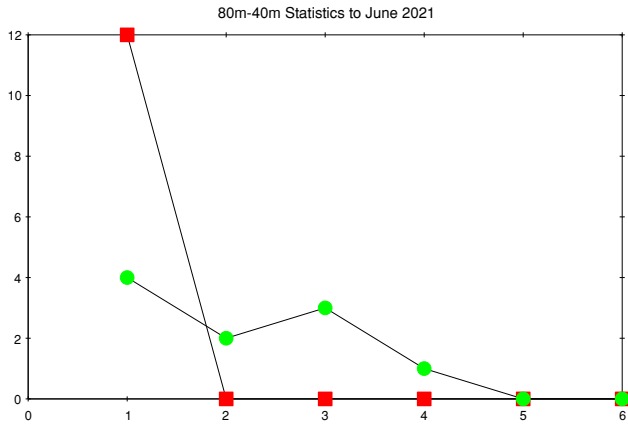


No pretty display this month, far too crowded requiring a magnifying glass to see the results!

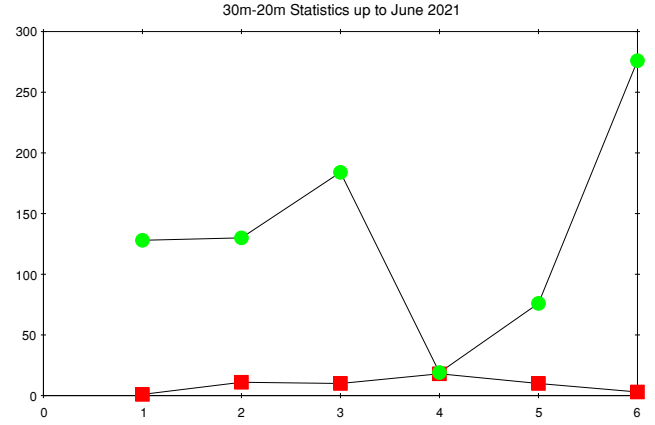
Germany	80	Norway	8	United Kingdom	1
Spain	77	Switzerland	7	United Nations	1
Russia	59	Bulgaria	7	San Marino	1
Japan	57	Denmark	7	Thailand	1
Italy	53	Belgium	5	Slovakia	1
Poland	43	Israel	5	Liechtenstein	1
England	22	Morocco	5	Andorra	1
United States	21	Iceland	4	Angola	1
France	20	Latvia	4	Australia	1
Hungary	16	United Arab Emirates	3	Azerbaijan	1
Sweden	15	Canada	3	Cape Verde	1
Netherlands	14	South Korea	3	Estonia	1
Czech Republic	14	Luxembourg	3	Hong Kong	1
Ukraine	14	Kuwait	3	Republic of Macedonia	1
Bosnia and Herzegovina	12	Kazakhstan	3	Ireland	1
Austria	12	Republic of China (Taiwan)	2	Qatar	1
Croatia	12	Belarus	2	People's Republic of China	1
Indonesia	11	Dominican Republic	2	Northern Ireland	1
Portugal	10	Algeria	2	Isle of Man	1
Greece	10	Lithuania	2	Netherlands and Former Netherlands Antilles	1
Slovenia	10	India	2	Mauritania	1
Serbia	9	Turkey	2	Malta	1
Scotland	9	Kenya	2	Lebanon	1
Finland	9	Tanzania	1	Montenegro	1
Romania	9	South Africa	1	Wales	1

QSO Countries

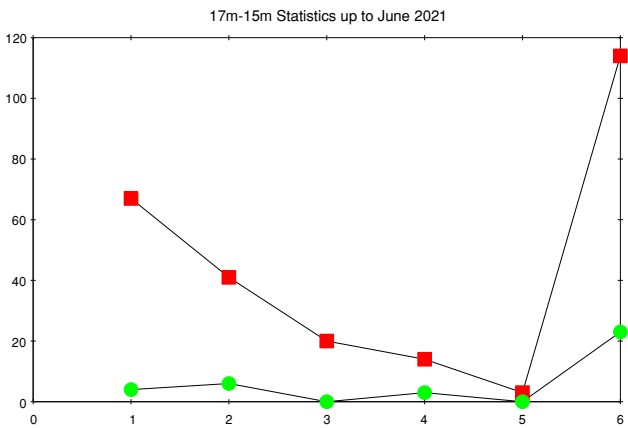
# 'Air Miles', bands by the month



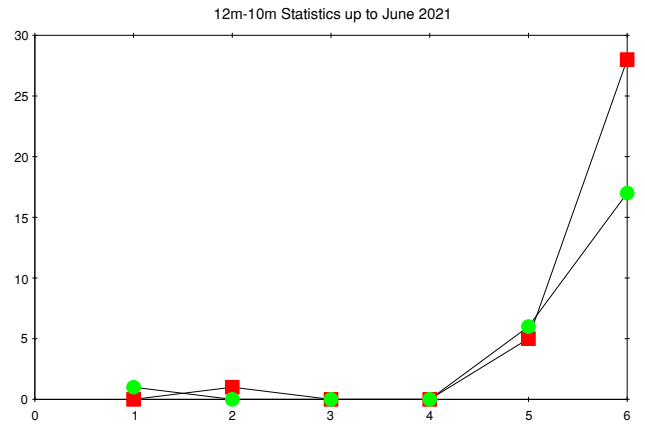
80m - 40m



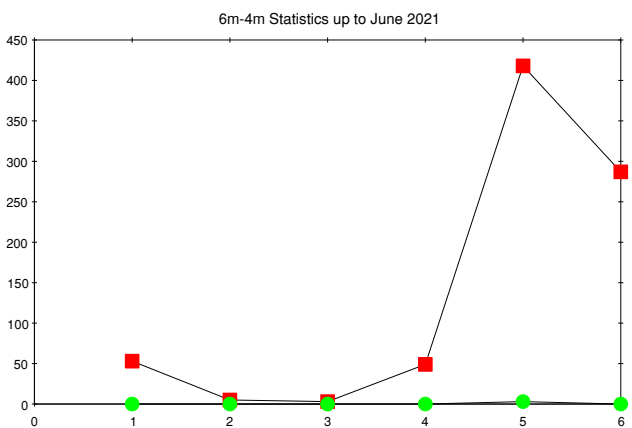
30m - 20m



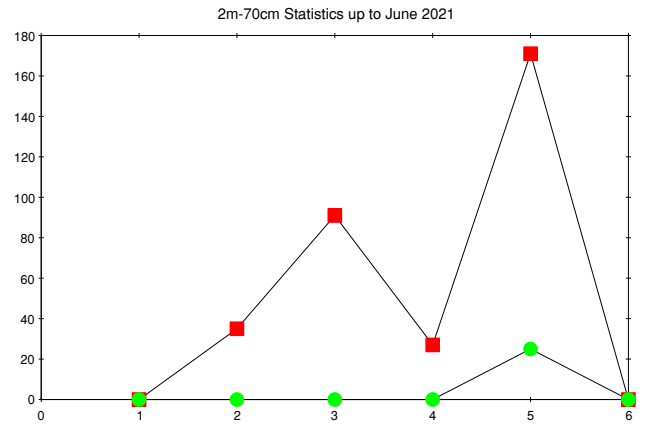
17m - 15m



12m - 10m



6m - 4m



2m - 70cm



# Any other business