

Newsletter

Chesham & District Amateur Radio Society

www.g3mdg.org.uk

August 2020

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

Welcome to the August edition of our newsletter

Welcome

My thanks to Terry (G4UEM) for the use of his article on Clansman Radios, without this the newsletter would be empty, if you're interested there's 16 pages of relevant information this month.

I've decided to go 'HF' only and as such have reduced my hardware count considerably, the wife (M6WTL) can now see her garden and decking instead of an array of coaxial cables, wires and aluminium tubes!

'Air Miles' continues this month, maybe not with as much 'gusto' as last month but with winter months not far away I would hope to see an increase in the number of logs presented.

Thanks to Malcolm (G3ZNU) for his article on his experience with the 'Air Miles' contest.

By the time this newsletter goes to 'press' we should have added one more member to the club.

Bryan MOIHY

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Treasurer - Matt Whitchurch (M1DTG) Editor - Bryan Page (MOIHY)

All the above are members of the committee and can be contacted on cdars_committee@googlegroups.com

Chairman's Ramble

July seems to have flown past, and it does not seem long since my last ramble for the newsletter. Looking back at the month, VHF field day should have taken place, though from memory, the weather would not have made it a great experience.

Instead, a few of us contributed towards the Northampton club effort, with different bands being used at various times over the week-end. At least I didn't have to get my rather battered tent out, which has not seen the light of day for a year or more. Last time I put it up, I found a telltale plastic ring that clearly had held together pieces of something, I wonder what that could have been.

We have had two meetings at Ashley Green, one testing VHF and the other using the site for the 80 metre club calls contest, courtesy of Dave FMC and Jules UGA. Many thanks for setting that up.

Both evenings were very encouraging and we have decided to make a block booking for the second and 4th Wednesday of the month up to the end of January next year. This will depend on whether the hall is declared COVID compliant, which it is hoped will be the case from the beginning of August.

If we decide on that as a permanent home, we will need to clear the cupboard at the Whitehill centre, which will give us a chance to check what equipment the club has there. We are able to store stuff securely at Ashley Green, which is another bonus. Talking of equipment, as I posted on the members group, we have decided as a club to purchase Bryan's pump-up mast and rotator, together with some antennas, which we will get much more use out of from Ashley Green, as well as using them for Brill next year, and SSB field-day. At the moment the club's finances are healthy, thanks to the two silent key sales last year together with a welcome increase in membership.

Finally, congratulations to Ant, who has passed his Foundation Licence exam this month, the 4th person who has gone through Bryan's online training successfully since lockdown started. Guy and Peter have also now put in for their Intermediate exams, which are also online, in September. When you pass, please for my memory's sake, try and keep the same suffix to the callsign.

73, Jeremy.

The Editors Musings

This month I promised myself I'd take a look at JS8Call, a derivative of FT8 with a few bells and whistles. Unfortunately I have to admit defeat as I have yet to make my first QSO this month in JS8Call, this confuses me as being based on FT8 I would expect to be able to have a QSO as easily as FT8, maybe they're all hiding!

I've been busy on the homefront with tidying up the shack, bringing the coax from my 3 antenna's into the shack to a 3-way coaxial switch, this has done away with my 6-way coaxial relay, which is now surplus to requirements. The shack looks much tidier, all I need now is to get on with learning Morse code before my 2 Morse keys go rusty!

Congratulations to Anthony on passing his Foundation exam, his callsign is M7GUB.

MOIHY

So, I've given up VHF and UHF.

After much deliberation I've decided to concentrate on 'HF' only, to me it makes sense...

At 72 years old I'm not the 'young buck' I used to be, gone are the days where I could keep up with the 'young-uns' so it makes sense to remove the 'obstacles', i.e. the 'heavy' stuff. Our neighbour Leigh used to have kittens when she saw me on the ladder with an antenna balanced in one hand and a spanner in the other while I mounted it onto the rotator at about 3 metres above ground, now she can relax as all my antenna's are mounted and all I have to do is switch between them in the shack!

As it is I discovered recently (my FT8 experience on Air Miles in June) the HF setup I have is quite good for getting out distance-wise, it's simple, just a 10 metre fishing type pole with 19.6m of flexweave, 10m up and 9.6m towards the back of the house, in an inverted-L form with a CG-3000 A.T.U. at its base, this deals with 160m-10m, my other antenna's are a cobweb at around 4m a.g.l. (all bands between 20m and 10m) and a Diamond V-2000 up on the back of the house at approximately chimney height for 6m, 2m and 70cm, the latter 2 for my handheld.

Our Yaesu FT897D was surplus to requirements as I have the Kenwood TS590SG for my HF and 6m stuff, the guy who purchased it will use it well and not like myself allow dust to settle on it!!

Until I'd taken the decision to go this route I had a pump-up mast that just sat there and was occasionally lifted to do a contest (I'm not a serious contester by any means but points are points and if it helps someone then I'm game), whatever points scored I gave to the Northampton Radio Club (VHF/UHF) and that was it. I had an array of antenna's collected over a period of about 4 years:

- 6m/10m rotatable dipole
- 6m 3-element yagi (heavy duty, never used)
- 6m/10m/15m rotatable dipole (Darrens - M0TLI)
- 2m 2-element LFA Quad
- 2m 5-element LFA Quad
- 432MHz 10-element yagi.

All this hardware just sat there, an ideal perching place for the pigeons, so... the club have purchased what I have and the really good thing is it will now get used. With the club at Ashley Green we have space to erect the mast on club nights, it can be used for Field Days, and possibly Brill Windmill, it could even be used for weekend contests where it is used as an end/centre support for a much longer dipole (160m comes to mind), I would think there's even a possibility that it could be used by club members at other times.

My shack looks as if its been on a diet, the good thing is that Angie has most of her garden and all of the decking back - good things happen to those that wait...!

CLANSMAN

BRITISH MILITARY RADIO SYSTEM



Famous Falklands picture of a soldier with a Clansman 350 antenna flying the Union flag.

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HISTORY

- Clansman is the name of a combat radio system used by the British Army from 1976 to 2000.
- The Clansman system replaces the ageing Larkspur radio system.
- Clansman was developed by the Signals Research and Development Establishment (SRDE) in the mid 1960's. The initial design started in the mid 1960's, with trials taking place in 1970 and 1972, production started in 1975 entering service in 1978 onwards.
- Clansman radio equipment was built by Racal, Mullard Equipment Ltd and Plessey, although headsets and ancillaries were also produced by Amplivox, Marconi and others.
- Bowman started to replace Clansman in 1999.

GLOSSARY

- PRC = Portable Radio Communications
- VRC = Vehicle Radio Communications
- RT = Radio Transceiver
- TURF = Tuning Unit Radio Frequency
- SURF = Selector Unit Radio Frequency
- DCCU = Direct Current Charging Unit
- ACCU = Alternating Current Charging Unit
- GSA = Ground Spike Antenna
-
- ***Other items you might come across***
- CES = Complete Equipment Schedule (an RT + the whole kit)
- ATR = Adaptor Telegraph Radio
- ARFAT = Adaptor RF Antenna Tuning
- TUAAM = Tuning Unit Automatic Antenna Matching
- IBRU = (Interconnecting Box Radio - rebroadcast Unit)
- DMU = Digital Master Unit

FAMILY PRC & VRC

- The Clansman family consists of 9 main radio units, 3 of which are carried on vehicles, the other 6 on the back, or across the chest of a foot soldier.
- Models are designated "UK/PRC" or "UK/VRC", which stand for "United Kingdom / Personal Radio Communications" and "United Kingdom / Vehicle Radio Communications" respectively.
- Normally shortened to PRC and VRC.

CLANSMAN HF RADIO SETS

- PRC-316
- PRC-319
- PRC-320
- VRC-321
- VRC-322

PRC-316 (A16)

- PRC-316 (A16)
- HF CW
 - 2 to 7 MHz
 - 4 watts
 - Crystal-controlled frequencies
 - Not really a Clansman radio
 - Late entry Larkspur
 - Intended for long range patrol use
 - Built in Morse key



PRC-319

PRC-319

- HF and VHF
- CW, USB and Data Modes
- 1.5 to 40 MHz at
- 5 or 50 watts
- Manufactured by MEL Communications



PRC-320

PRC-320

- HF USB/AM/CW
- 2 to 29.9999 MHz (possible 280,000 channels)
- 3 or 30 watts
- Manufactured by Plessey



VRC-321

VRC-321

- HF SSB and CW
- 1.5 to 30 MHz
- 40 watts
- Manufactured by Mel Communications



VRC-322

VRC-322

- Clansman VRC-321 with an additional 250 Watt RF Amplifier and a high power Antenna Tuning Unit "TURF".



CLANSMAN VHF RADIO SETS

- PRC-349
- PRC-350
- PRC-351/352
- PRC-353

PRC-349

PRC-349

- VHF FM
- 37 to 46.975 MHz
- 0.25 watts
- Range 0.3 - 2 kms
- Weight 1.5 Kgs
- Manufactured by Racal



PRC-350

PRC-350

- VHF FM
- 36 to 57 MHz
- 2 watts
- Range 5 km
- Weight 3.1 Kg
- Manufactured by Racal



PRC-351

PRC-351

- VHF FM
- 36 to 80 MHz
- 4 watts output
- Range 8 kms
- Weight 7.4 Kgs
- Manufactured by Racal



PRC-352

PRC-352

- Clansman PRC-351 with the additional of a 20-Watt amplifier



VRC-353

VRC-353

- VHF FM
- 36 to 80 MHz
- 50 watts
- Weight 22 Kgs
- Manufactured by Marconi



CLANSMAN UHF RADIO SET

PRC-344

- VHF/UHF AM
- 225 to 400 MHz
- 2.5 watts
- Range 160 km
- Weight 7.5 kgs



BATTERIES AND CHARGING

- All the Batteries are NiCad 24 V
- **Chargers**
 - DC Charging Unit (DCCU)
 - AC Charging Unit (ACCU)
 - Hand crank
- **Batteries**
 - Nicad 24V 4AH
 - Nicad 24V 1AHi



CLANSMAN CONTROL HARNESS AND ACCESSORIES

- A range of accessories which were fitted into vehicles for controlling the sets
- Loud speakers
- Vehicle intercom systems
- Switching between two radio sets
- Control boxes, these provided switching and the ability to plug in audio equipment

CLANSMAN AUDIO GEAR

- Lightweight "B" Vehicle headsets (Headset BV)
- Infantry Headset (Headset I)
- Clansman Handset
- Pressel Switch (PTT)



CLANSMAN ACCESSORIES

- Interconnecting Box Radio-rebroadcast Unit (IBRU)
- Digital Master Unit (DMU) used in conjunction with the necessary encryption devices can provide secure communications on a VHF network
- Selector Unit Radio Frequency (SURF) is used to prevent interference with other nearby radios. It filters out the unused frequency bands by use of a manual control on the front of the unit, so that only the frequency in use, and those close to it are processed by the TURF and antenna.



ANTENNA TUNING AND MATCHING

- TURF (Tuning Unit Radio Frequency) is used to artificially lengthen or shorten an HF antenna.



ANTENNA TUNING AND MATCHING

- TURF (Tuning Unit Radio Frequency) is used to artificially lengthen or shorten an HF antenna. TUAAM (Tuning Unit Automatic Antenna Matching) is essentially a TURF but for VHF. It automatically tunes the antenna. Normally mounted on the front wing of a Landrover.



CLANSMAN ANTENNA

- HF Dipoles
- 5.4m mast with vertical wire and topping off kit (7.9m vertical)
- Long Wire (inverted L)
- Vertical rod with TUAAM/ARFAT VHF ATU
- EVHF "Pineapple" broadband elevated vertical on 8m mast
- Ground Spike Antenna (GSA)
- Ground Spike Antenna (GSA) with Elevation Kit on 5.4m mast
- VHF ground mounted monopole

CLANSMAN ANTENNA

- Battle Whip Antenna
- Pineapple Antenna
- Ground Spike Antenna (GSA) VHF used with the PRC-350/351/352



GETTING STARTED



- PRC-320 Complete £285 + £17.50 postage
- PRC-351 Complete £115 to £135 + £20 postage
- PRC-349 Complete £75 + £10 postage

SUGGESTED SET-UPS

- **PRC-350**
Radio
50cm battle whip or 1.2m whip
15v battery or 'C' cell cassette
Handset/Headset
- **PRC-320**
Radio
Gooseneck adapter
2.4m whip
24v battery
Handset/Headset
For CW - Morse Key



SUGGESTED SET-UPS

- **PRC-351**
Radio
50cm battle whip or 1.2m whip
24v battery
Handset/Headset
- **PRC-352**
As above, but also
20W amp
Interconnecting coaxial cable
Ground Spike Antenna (GSA)



LINKS

- **Vintage Military Amateur Radio Society (VMARS)**
for manuals
<http://www.vmars.org.uk/>
- Johnsons of Leeds
<http://www.johnsonsofleeds.co.uk/shop/en/35-radio-equipment>
- Army Radio Sales Co
<https://armyradio.com/home.php>
- Phoenix Technical Services (PTS)
<http://www.ptsnorfolk.co.uk/index.php/l/>



How did I become interested in Clansman equipment?

I joined the Luton VHF Group and met Don G4LOO.

Don is seen here operating from his Series III Landrover at the Bedfordshire Steam Fayre, this sparked my interest in Clansman equipment.



The 'Good, Bad and (Ugly?)' of FT8

Last month I promised I'd say a little about my experience with FT8 during my initiation with the 'Air Miles' contest.

My opinion of FT8 is thus:

Cons:

- its like watching grass grow
- boring after a while as there's no real challenge, it can be too easy at times
- not what I would constitute as an 'old school' QSO.

Pro's

- Is being used in emergency communications (JS8Call, an FT8 derivative in the U.S.A.)
- Can be an indicator for good propagation
- If you're missing that 1 important QSO (country, square, etc.) then go for it.
- It's like shooting fish in a barrel, you just can't miss!

While FT8 isn't my 'cup-of-tea', I do find it has its uses, moreso for the good. I think (again, my opinion) the general problem with digital modes is the more modes you get, the more divided the community becomes. I liken it to having 1 restaurant in town, then another one starts up, you find you've lost half your custom, then another restaurant starts up, suddenly you find you have even less custom and something has to give, people just don't use you any more. I've noted this with 'Olivia' and others where they're trying to keep it alive but have lost their user base to FT8.

I'm grateful to JS8Call for at least trying to keep the 'old school' QSO alive, the fact it uses FT8 as its base should mean we have keyboard to keyboard QSO's in weak signal conditions.

This months contests

August

VHF

Day	Date	Time UTC	Contest Name
Sat	01-Aug-2020	1400-1800	4th 144MHz Backpackers
Sun	02-Aug-2020	0800-1200	432MHz Low Power Contest
Tue	04-Aug-2020	1800-1855	144MHz FMAC
Tue	04-Aug-2020	1900-2130	144MHz UKAC
Sun	09-Aug-2020	1400-1600	70MHz Cumulatives
Tue	11-Aug-2020	1800-1855	432MHz FMAC
Tue	11-Aug-2020	1900-2130	432MHz UKAC
Thu	13-Aug-2020	1900-2130	50MHz UKAC
Tue	18-Aug-2020	1900-2130	1.3GHz UKAC
Thu	20-Aug-2020	1900-2130	70Mhz UKAC
Tue	25-Aug-2020	1830-2130	SHF UKAC

September

HF

Day	Date	Time UTC	Contest Name
Sat-Sun	5/6-Sep-2020	1300-1300	SSB Field Day
Mon	07-Sep-2020	1900-2030	Autumn Series SSB
Wed	16-Sep-2020	1900-2030	Autumn Series CW
Thu	24-Sep-2020	1900-2030	Autumn Series DATA

VHF

Day	Date	Time UTC	Contest Name
Tue	01-Sep-2020	1800-1855	144MHz FMAC
Tue	01-Sep-2020	1900-2130	144MHz UKAC
Sat	5/6-Sep-2020	1400-1400	144MHz Trophy Contest
Sun	06-Sep-2020	1100-1500	5th 144MHz Backpackers
Tue	08-Sep-2020	1800-1855	432MHz FMAC
Tue	08-Sep-2020	1900-2130	432MHz UKAC
Thu	10-Sep-2020	1900-2130	50MHz UKAC
Tue	15-Sep-2020	1900-2130	1.3GHz UKAC
Thu	17-Sep-2020	1900-2130	70MHz UKAC
Sun	20-Sep-2020	0900-1200	70MHz AFS Contest
Tue	22-Sep-2020	1830-2130	SHF UKAC
Tue	29-Sep-2020	1900-2130	144MHz MGMTAC
Tue	29-Sep-2020	????-????	50MHz MGMTAC

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

This month we have amassed 432,066 miles and that's from just 3 off us. I think Jeremy should receive praise for his QSO's as Malcolm and my QSO's are almost 'click-and-collect' whereas Jeremy has considerably more work to do.

So, how have we done this month?

General

(Running totals in red)

Most miles

G3ZNU	■	(224,406)	(655,401)	■
M0IHY	■	(123,647)	(530,601)	■
G3XZG	■	(84,013)	(170,825)	■
M7CXP	■		(22)	■

Longest QSO (miles)

M0IHY	■	JA6VQA (5835)	CP6CL (6099)	■
G3ZNU	■	BD7BM (5623)	JR3NZC (5924)	■
G3XZG	■	HA3GZ (3569)	R5VAN (1674)	■
M7CKP	■		G4DUL (22)	■

Average per QSO (miles)

G3ZNU	■	(1053.55)	(945.74)	■
M0IHY	■	(1047.86)	(959.5)	■
G3XZG	■	(943.97)	(913.5)	■
M7CKP	■		(11)	■

Most QSO's

G3ZNU	■	(213)	(693)	■
M0IHY	■	(118)	(553)	■
G3XZG	■	(89)	(187)	■
M7CXP	■		(2)	■

Shortest QSO (miles)

G3XZG	■	(2)	(3)	■
M0IHY	■	(11)	(4)	■
G3ZNU	■	(407)	(0)	■
M7CKP	■		(11)	■

Maidenhead Squares

G3ZNU	■	(143)	(348)	■
M0IHY	■	(97)	(288)	■
G3XZG	■	(70)	(139)	■
M7CKP	■		(1)	■

By Band

QSO's for 80m

M0IHY	■	(8)	(9)	■
G3XZG				
G3ZNU				
M7CKP				

QSO's for 40m

M0IHY	■	(8)	(95)	■
G3XZG	■	(3)	(4)	■
G3ZNU				
M7CKP				

QSO's for 30m

M0IHY	■	(8)	(61)	■
G3XZG				
G3ZNU				
M7CKP				

QSO's for 20m

M0IHY	■	(17)	(153)	■
G3ZNU	■	(10)	(10)	■
G3XZG	■	(8)	(25)	■
M7CKP				

QSO's for 17m

M0IHY	■	(65)	(186)	■
G3ZNU	■	(63)	(66)	■
G3XZG	■	(4)	(4)	■
M7CKP				

QSO's for 15m

M0IHY	■	(5)	(25)	■
G3XZG	■	(4)	(4)	■
G3ZNU	■	(1)	(1)	■
M7CKP				

QSO's for 12m

G3ZNU	■	(3)		
G3XZG				
M0IHY				
M7CKP				

QSO's for 10m

G3XZG	■	(11)	(25)	■
G3ZNU	■	(2)	(125)	■
M0IHY			(13)	■
M7CKP				

QSO's for 6m

G3ZNU	■	(134)	(488)	■
G3XZG	■	(59)	(125)	■
M0IHY	■	(7)	(11)	■

'Air Miles' results for July

By Mode

CW

G3XZG ■ (88) (186) ■
G3ZNU ■ (3) (3) ■
M0IHY
M7CKP

FT8

G3ZNU ■ (200) (549) ■
M0IHY ■ (118) (552) ■
G3XZG
M7CKP

FM

M7CKP ■ (2) (2) ■
G3XZG
G3ZNU
M0IHY

SSB

G3ZNU ■ (2) (18) ■
G3XZG ■ (1) (1) ■
M0IHY
M7CKP

MFSK

G3ZNU ■ (8) (123) ■
M0IHY
G3XZG
M7CKP

Olivia 8/250

M0IHY ■ (1) (1) ■
G3XZG
G3ZNU
M7CKP

By Country

G3ZNU ■ (37) (76) ■
M0IHY ■ (30) (68) ■
G3XZG ■ (25) (49) ■
M7CKP ■ (1) (1) ■

Most QSO's

G3ZNU ■ (213) (693) ■
M0IHY ■ (118) (553) ■
G3XZG ■ (89) (187) ■
M7CKP ■ (2) (2) ■

The 'Air Miles' Challenge - my experience

The Air Miles Challenge started in June, which is prime time for Sporadic E propagation on the high HF bands and lower VHF. So as June started, I decided to stick to 6m and the high HF bands - in practice just 10m - to see what could be done with more concerted operating than I was used to. Having a challenge to aim for meant I was active on far more days than before, so could catch more of the openings.

By the end of June I'd worked 347 stations in 176 squares on 6m and 122 stations in 85 squares on 10m, virtually all on FT8. Not bad for one month's operating. Nothing particularly exotic due to my modest setup, and it was frustrating to hear many UK stations working into the USA over my head. I had several decodes from the US and worked one, but there were clearly many stronger signals than mine, and I probably missed the really big openings. I was pleased to work two stations in Kazakhstan, six during an opening to Iceland, and two in Gibraltar. The slightly odd bit about the month was how few UK and near Europe stations and squares I worked - I was looking for miles after all! (Take a look at the squares plot attached) (next page).

So far so straightforward. I clearly didn't want to work the same station twice in the month, so I set up my WSJT-X colours as for a contest and reset all the logs to start from fresh on 1st June. But it did get me to wondering how soon after a rubber-stamp FT8 contact should I consider working the same station again? I had JTAlert set up to let me know if a station was in my log and when the last QSO was so I could make a judgement before calling. The rule of thumb that I then adopted was that if I'd not worked a station this year it was fair game to call them again. Despite this I did get one station that I called reply with "DO NO DUPE" (I won't say the callsign). I looked back in the log and found I had worked the station in May 2019, hardly recently! What do you think is fair game for a repeat QSO - outside a contest of course? Another started the QSO, then sent me a message via JTAlert (it has person to person messaging built in) to tell me we have worked and promptly went back to calling CQ.

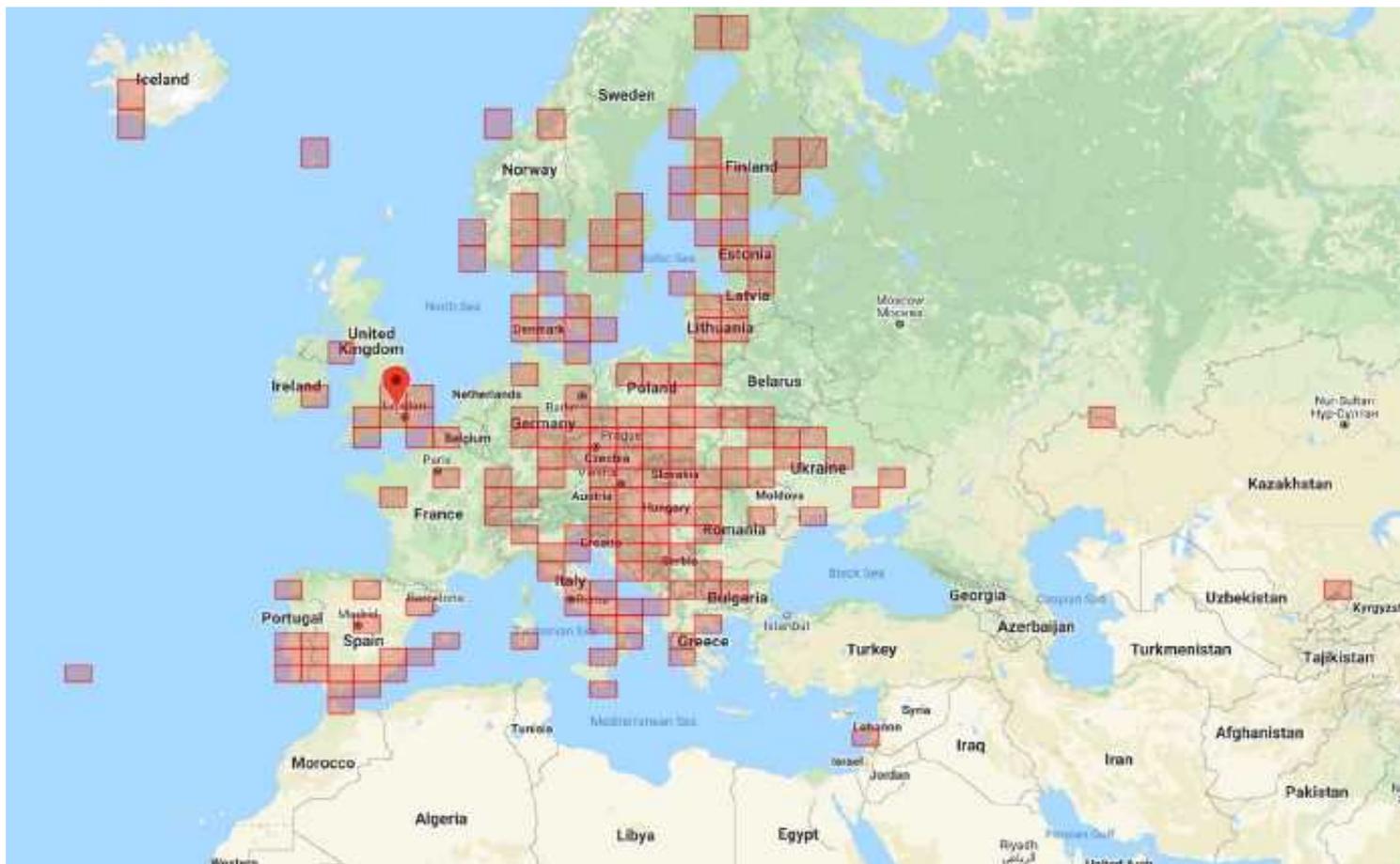
What do members think? When is it reasonable to call a station for a QSO again? Is it different for different modes? It's hardly a "dupe" if I call someone regularly on a repeater! Have some stations gone too far with country / square / prefix chasing, and don't want to be bothered with regular QSOs?

G3ZNU

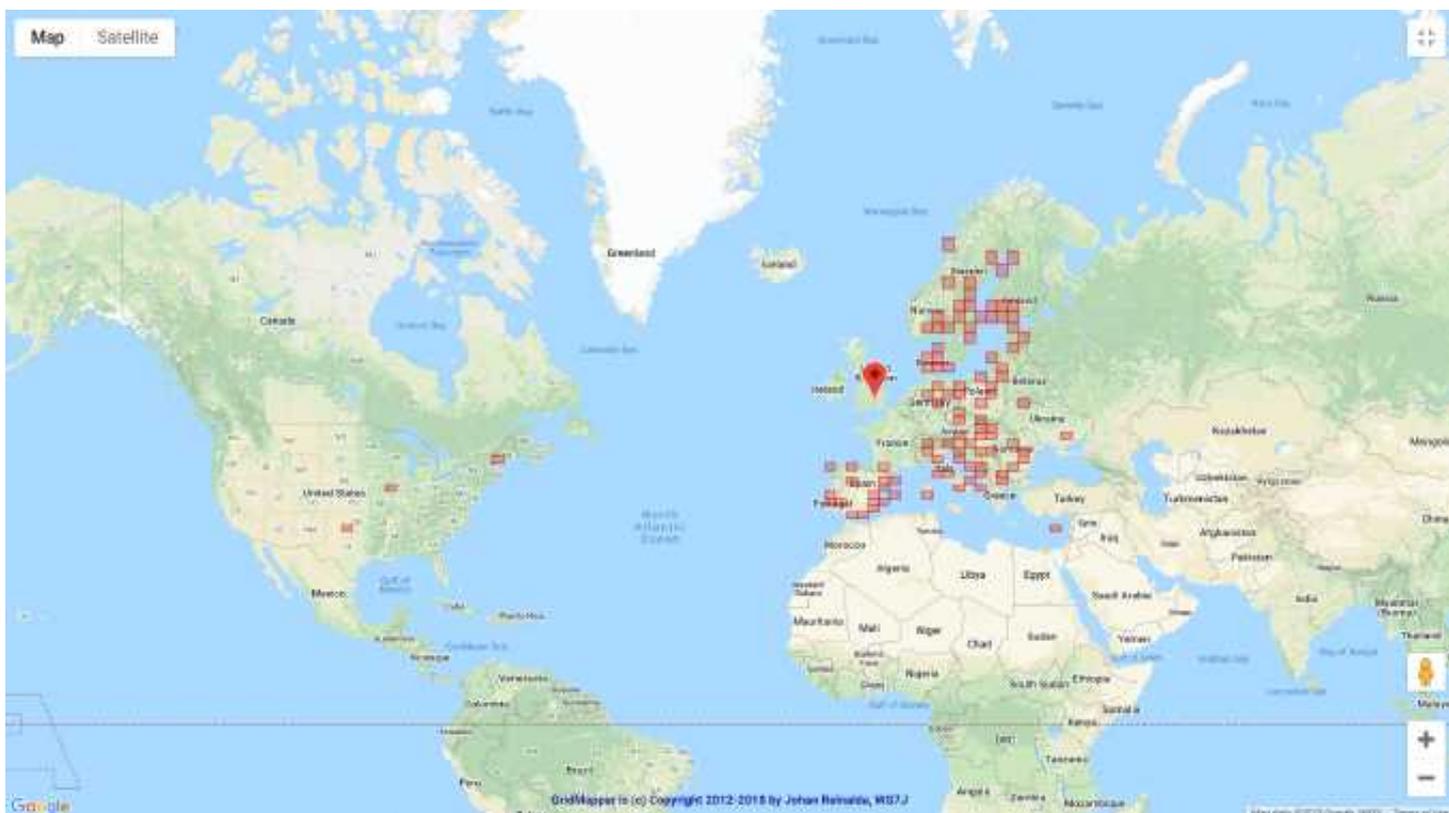
Your experience with JTAlert reminds me of a 'mini' QSO I had last year, a Portugese ham who I had worked several months beforehand came back to me (SSB) and quite rudely said he'd already worked me and continued to call CQ, he likens things to stamp collecting in the sense you only collect 'unique' stamps, these collectors are called *philatelists*, what do they call hams who collect unique callsigns, suggestions welcomed??

MOIHY

The 'Air Miles' Challenge - my experience



Malcolm's June tally for 6M



... and his tally for July

Any other business

Congratulations...

To Anthony on passing his Foundation Licence examination on the 24th of July, his callsign is M7GUB.

Intermediate Exams

Both Peter (M7CKP) and Guy (M7GUY) have put in for their Intermediate Licence exams, both in September, should you find anything untoward with the online question bank please contact me.

SSB Field Day

Normally we would hire the field in Wiggington for the 24-hour SSB Field Day stint, this year we're holding back as we're not sure what's happening regarding COVID-19. I have suggested to the RSGB that a possibility would be to have members of a club each taking a turn at operating from their own QTH, thus keeping social distancing and enabling members to contribute to the day, so far the RSGB are considering *"single operator as a minimum but hope to allow multi-operator in some form with a decision in August."*

For sale



Diamond 2m & 70cm SWR meter
(30W/300W switchable, as new)

Used once only.

Originally cost £65.

Will accept £40 o.v.n.o.

MOIHY



10W in - 50W out

70cm linear amplifier, with preamplifier. £90

MOIHY

If you're into digital modes and don't have a rig with built-in facilities, this is your ideal companion.

It comes with all leads required including the CAT control cable for the Yaesu FT897D (this lead also caters for other Yaesu models).

Originally cost around £160 all in, will accept £75.



MOIHY