

Photo: MM0DXC's holiday receiving setup



In this issue

1. Editorial
3. CQWW SSB 2021 UBN
6. DF Hunt Rules
8. Activity Day Report
13. Contest Calendar
14. HF Propagation
18. Clublog Tables
13. Test Your Knowledge
14. Club Calendar

Cockenzie & Port Seton Amateur Radio Club is affiliated to the Radio Society of Great Britain and holds the call signs MM0CPS and GM2T which are used for our special event and contest entries.

The Club was formed by Bob Glasgow BEM GM4UYZ in 1984, to help the local amateurs get to know each other.

Far from being just a local club we have members regularly attending from the Borders, Dumfries, Strathclyde, Fife and Newcastle.

The Club meets on the first Friday of every month in the lounge of the Thorntree Inn on the old Cockenzie High Street from 7pm till late.

Editorial

May already who can believe that, where has the last four months gone, they have just vanished. It is also hard to believe that we will soon be into the major holiday season of the year. Well all I can say where has the year disappeared too. I had great plans to play more radio, do more on my family research but alas it has not happened. This year I will get around to some of the "best laid plans"

So, what has happened this month, from the club events point of view, our Monthly Activity Day, GMDX convention or normal visit to Blackpool for the NARSA Blackpool Rally. On the Training front I have started a Foundation Licence Training course via ZOOM with one 14year old candidate, so I wish him all the best. After that I am taking a well-earned rest before starting up in late August with a Foundation Class. If you know anyone who interested in joining can you get them to contact me ASAP

My training Program dates for the 2022/2023 training are now fixed and can a list of dates can be downloaded from the CPSARC website. They are now Face-to-Face classes, and we are now based at the Royal British Legion in Cockenzie. If you or anyone you know is interested, then please contact me at bob.gm4uyz@talktalk.net.

To the future, this month we have our annual DF night, Friday 27th May on 144MHz which is a little bit later than

normal with this due to Rickie GM1PLY's shifts. Rules will hopefully be attached to the newsletter plus can found up on the website as well. To keep ourselves safe as maybe in someone else's car then I suggest we all wear Face Masks unless you are the only occupant in the car. The fox again is Ricky GM1PLY. Starting location is the old Pond Hall car park. Take the left hand turning after the garage if you are driving east and head the 100 yards down to the bottom of the road. If you go too far you will be in the sea.... It starts at 19:00, assemble at 18:30. This is a fun night and has produced many funny stories over the years that we have done it so come on folks come along and join in I can assure you; you will have fun. (DF'ing is not as easy as you think). This year the fox as I write this I need to confirm up.

Also starting soon is the "Contesting Season," as I like to think about it with PW QRP, 6M Trophy, VHF Field Day, IOTA from Tiree and CQWW SSB. At present there are no changes, and it is back to full operating options. Announcements will once again be placed on the Club's website and Facebook Page if they are happening. Moving on, one thing that has come out of the Tiree organisation is finding out who is going and who is not as this has enabled operating rota's to be

(Continued on page 2)



(Continued from page 1)

produced which at the end of the day does give everyone a "play at radio" but as important, a well-earned rest. If you have not done any contesting, why not come and give it a try you may just like it. I do admit it is like the "old" CW scenario you either love it or hate it.

Not to forget those not interested in contesting well we still have our demonstration and special events. Sadly, I have not been able to organise anything. I was hoping when the events start off with the Museum's Weekend at the National Mining Museum but although I have emailed a few times they have never responded so to that end it will not happen.

Lighthouse Weekend at Barns Ness is also a no-go as we cannot get the house and even if we did the cost is astronomical which really takes it away from us. Sad to say everywhere is now all geared around money so it is getting harder and harder to do anything. It is not about not wanting to do them it is the costs that are killing it.

Please do not forget the Club's Activity Night in May and June as well. As you can see there is plenty scope for getting on the air one way or another.

That is it then with something for you all to think about enjoy the newsletter and we will see you all on DF night and all our other events if they can go ahead.

Bob GM4UYZ

27th ANNUAL MINI-RALLY NIGHT

FRIDAY 12th AUGUST

Community Centre, Main Hall, Port Seton.

Bring along your own "junk" and sell it yourself. Tables on First Come First Served basis.

Entrance fee £2 for everyone. Time 18:30 to 22:00

I have booked our local Community Centre for the Junk Night and it will be nice to see our Fund-Raising night take place once again after not happening for the last two years.

Please note the change of time as it is starting later to allow time for anyone who is travelling.

Tables will be on a First Come First Served basis

Regarding COVID precautions, hopefully they will all be totally removed by the date but if not then we will abide with what is in place. Regards the centre if there are COVID restrictions in place then the actions required by you will be displayed as you enter the main door i.e. Face Masks, Social distancing, etc. I would be grateful to you all that you adhere to them.

If there are any changes I will place them on our website – www.cpsarc.com on Facebook and a general email to those who have signed up to receive emails from CPSARC.

Looking forward to seeing you all at the event

CQWW SSB 2021 UBN

(Unique, Broken, Not in Log)

Contest: 2021 CQ WW DX SSB CONTEST
Call: GM2T
Category: Multi-Two

Summary of log submitted for the Contest

Contest : CQ Worldwide DX Contest
Callsign : GM2T
Mode : PHONE
Category : Multi Operator - Two Transmitter (M2)
Overlay : ---
Band(s) : All bands (AB)
Class : High Power (HP)
Zone/State/... : 14
Locator : IO85SX
Operating time : 47h59

BAND	QSO	CQ	DXC	DUP	POINTS	AVG
160	354	10	51	12	390	1.10
80	651	16	67	15	927	1.42
40	437	20	79	4	564	1.29
20	1133	30	94	22	2010	1.77
15	870	32	108	8	1743	2.00
10	236	23	59	4	524	2.22

TOTAL	3681	131	458	65	6158	1.67
=====						
TOTAL SCORE : 3 627 062						

Dupes are not included in QSO counts neither avg calculations

UBN INFORMATION

The advantage of this feedback is that it can help identify problem areas with the operating, not that it is finger pointing as that is not the intention but as an aid to aim for ZERO errors. This year we lost 12.3% of our submitted score so the aim for 2022 will be 0% although in practice it will never be done.

***** Summary *****

3675 Raw QSO before checking (does not include duplicates or missing exchanges)
3542 Final QSO after checking reductions

6149 Raw QSO points
5474 Final QSO points

457 Raw countries
450 Final countries

131 Raw zones
129 Final zones

588 Raw mults
579 Final mults

3615612 Raw score
3169446 Final score

12.3% Score reduction

Other years:

2010 = -9.9%
2011 = -7.8%
2012 = 11.3%

2013 = 7.3%
2014 = 8.2%
2015 = 8.5%
2016 = 11.5%
2017 = 13.8%
2018 = 13.0%
2019 = 10.1%
2021 = 12.3%

Areas where there were errors...

3.6% Error rate based on claimed and final QSO counts
12.3% score reduction
33 (0.9%) not in log
93 (2.5%) incorrect calls
7 (0.2%) incorrect exchanges
0 (0.0%) missing exchanges
70 (1.9%) duplicates removed
9 (0.2%) calls unique to this log only (not removed)

Duplicates: These are not a real error as often stations will be worked again as they may say not in their log or even not in our log. It just easier for both stations to work each other rather than argue over the air for 5 minutes!!!

Results by Band: This is a band-by-band breakdown of the QSOs, points and multipliers for your entry

Calls Copied Incorrectly: The call logged for these contacts was determined to be incorrect. QSO removed with additional penalty of 2 x QSO points These can be caused by mishearing and logging the misheard call, QRM not making the Callsign clear and thus assuming you have it correct.

RESOLUTION: *If not sure get the station to confirm the call again and at the same time check you are typing on the key-board!! We had 93 QSO's copied incorrectly*

Incorrect Exchange Information: The information you copied does not match what was in the other station's log. The QSO was removed. This is a difficult one as we think we have worked a station when in fact we have not. I put this down to a remarkably busy band and more than one station is so close to you it gives the impression you have worked him.

RESOLUTION: *If possible, listen very closely to what is being said i.e. Call Sign being returned... We had 7 QSO's with incorrect exchange*

Not in Log: The station that was contacted we were not in his log. Good chance he has logged us incorrectly!!!

Calls Unique to this Log ONLY: These calls are not an error so no points will be lost for any of the calls. More than often these are where stations will come on and work someone then do not work anyone else. I sometimes do this as it could be a rare station and all I want to do is work it and it alone. We had 9 QSO's in this area

Out of Band: Contacts that were verified to be made on frequencies that you are not authorized to use. These contacts are removed without penalty. We had 0 QSO's out of Band

Band Change Violations (Multi-One or Multi-Two only): These contacts violated the band change rules for the category.

The QSO was removed without penalty. No errors here

Lost Multipliers: In total we lost 9 Multipliers where they were 6 mistypes (7 x Countries, 2 x Zones) due to logging incorrect Call Sign, 3 were Not on the other stations log. The target is always to make no errors at all as losing multipliers can be very costly to your final score.

Stations copying GM2T Incorrectly: There were 99 incidents of this. We must ensure that when we listen to the call sign being returned that it is correct. If it is wrong, please ensure that it is corrected. We do not lose points and multipliers for these contacts.

For information we were logged as: G2T – 2 times, GM0T – 2 times, GM2– 1 times, GMT2 – 1 times, GM3T – 58 times, GM4T – 2 times, GM6T – 21 times, GM8T – 1 times, GM2Y– 1 times, M2T – 4 time, EM2T – 1 times, GM2TGM33 – 1 times, GM2TU – 1 times, KM2T – 1 times, GN2T – 1 times, MM2T – 1 times

***** Results By Band *****

	Band	QSO	QPts	Zone	Cty	Mult	
Raw	160M	353	389	11	51	62	
Final	160M	339	343	10	50	60	
Raw	80M	650	926	16	67	83	
Final	80M	629	841	16	67	83	
Raw	40M	437	564	20	79	99	
Final	40M	428	531	19	78	97	
Raw	20M	1132	2007	30	94	124	
Final	20M	1089	1764	30	93	123	
Raw	15M	868	1739	31	107	138	
Final	15M	825	1492	31	103	134	
Raw	10M	235	524	23	59	82	
Final	10M	232	503	23	59	82	
Raw	All	3675	6149	131	457	588	3615612
Final	All	3542	5474	129	450	579	3169446

***** Multipliers by Band *****

160M multiplier total 60

Countries

3A	4U1V	9A	A7	CT	CT3	CU	DL	E7	EA
EA6	EI	ES	EU	F	G	GD	GM	GW	HA
HB	HB0	I	IT9	K	KP4	LA	LX	LY	LZ
OE	OH	OK	OM	ON	OZ	PA	S5	SM	SP
SV	TA	UA	UA2	UA9	UR	VE	YL	YO	YT

4 5 8 14 15 16 17 20 21 33

80M multiplier total 83

Countries

3A	4O	4X	5B	9A	9V	A4	A7	BY	CT
CT3	CU	DL	E7	EA	EA6	EI	ER	ES	EU
F	G	GD	GI	GM	GW	HA	HB	HB0	I
IG9	IS	IT9	K	KP2	KP4	LA	LX	LY	LZ
OE	OH	OH0	OK	OM	ON	OZ	PA	PJ4	S5
SM	SP	SV	TA	TF	UA	UA2	UA9	UK	UN
UR	VE	YL	YO	YT	Z6	ZF			

ZONES

2 4 5 8 9 14 15 16 17 18 20 21 23 28 33 40

40M multiplier total 97**Countries**

3A	4O	4U1V	4X	5B	5Z	9A	9H	9K	A4
A6	A7	BY	C3	CM	CT	CT3	CU	DL	E7
EA	EA8	EI	ES	EU	EY	F	FY	G	GM
GU	GW	HA	HB	HK	HZ	I	IS	IT9	K
KP4	LA	LX	LY	LZ	OE	OH	OH0	OK	OM
ON	OY	OZ	P4	PA	PJ2	PJ4	PY	S5	SM
SP	SV	TA	TF	TI	UA	UA2	UA9	UN	UR
V3	VE	VP5	VU	YO	YT	YV	Z6		

ZONES

2 4 5 7 8 9 11 14 15 16 17 18 20 21 22 23 33 37 40

20M multiplier total 123**Countries**

3A	4L	4O	4U1V	4X	5B	9A	9H	9K	A4
A7	BY	CE	CM	CT	CT3	CU	D4	DL	E7
EA	EA6	EA8	EA9	EI	ES	EU	F	FM	G
GM	GU	GW	HA	HB	HB0	HI	HP	HZ	I
IS	IT9	JA	JW	K	KH6	KL	KP4	LA	LU
LX	LY	LZ	OE	OH	OH0	OK	OM	ON	OX
OZ	PA	PJ2	PJ4	PY	PY0F	S5	SM	SP	SV
TA	TF	TK	UA	UA2	UA9	UN	UR	V2	VE
VK	VP9	VU	XE	YB	YI	YL	YO	YT	Z3
Z6	ZF	ZP							

ZONES

1 2 3 4 5 6 7 8 9 11 12 13 14 15 16 17 18 20 21 22 23 24 25 28 29 30 31 33 35 40

15M multiplier total 134**Countries**

3B8	4J	4O	4X	5B	5Z	7P	7X	9A	9G
9H	9K	9Y	A4	A6	A7	BY	CE	CM	CT
CT3	CU	CX	D4	DL	E7	EA	EA8	EA9	EI
ER	ES	EU	F	FG	FM	FR	G	GD	GI
GM	GW	HA	HB	HB0	HC	HC8	HI	HK	HP
HS	HZ	I	IS	IT9	J6	K	KP2	KP4	LA
LU	LY	LZ	OE	OH	OK	OM	ON	OX	P4
PA	PJ2	PJ4	PJ7	PY	PY0F	PZ	S5	SP	SV
SV9	TA	TA1	TI	UA	UA9	UN	UR	V2	V3
VE	VK	VP5	VU	YB	YL	YO	YT	Z3	Z6
ZF	ZP	ZS							

ZONES

2 3 4 5 7 8 9 10 11 12 13 14 15 16 17 18 20 21 22 23 24 26 28 29 30 33 35 37 38 39 40

10M multiplier total 82**Countries**

3B8	4X	5B	5Z	9H	A4	A7	BY	CE	CT
CT3	CU	CX	D4	DL	E7	EA	EA8	F	FG
FR	FY	G	GD	GM	HB	HC8	HI	I	IT9
K	KP2	KP4	LU	LZ	OD	OK	ON	P4	PA
PY	PY0F	PZ	S5	SM	SV	SV9	TA	TF	UA
UA9	UN	UR	VE	VK	VP9	YO	ZF	ZS	

ZONES

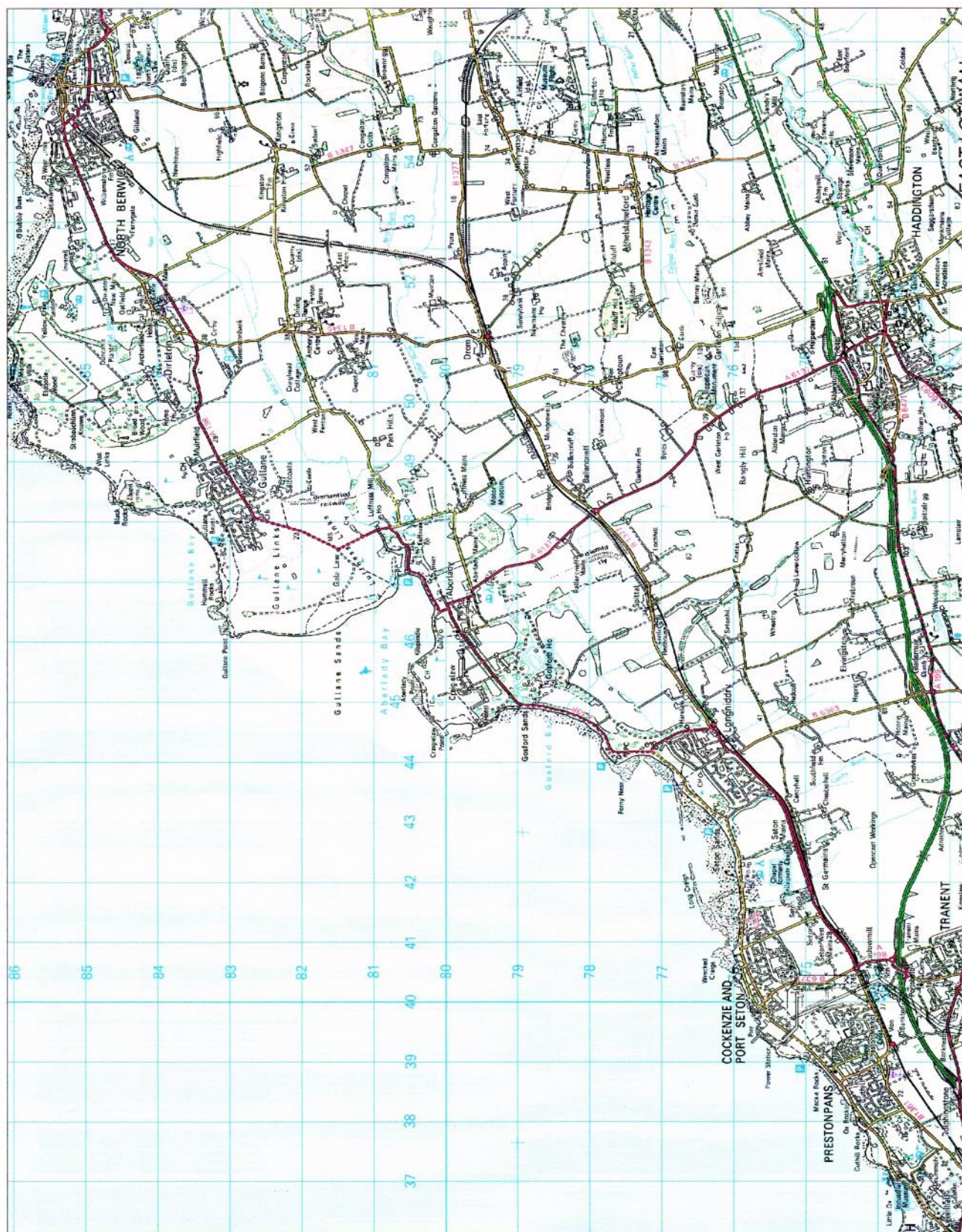
4 5 8 9 10 11 12 13 14 15 16 17 20 21 23 29 30 33 35 37 38 39 40

Hope you find the above interesting and help you understand why listening to exchanges during the contest is so important and after the event making sure that any “typo” errors have been picked up before submission. Remember you are entering a contest to have fun and to submit the best score that you can achieve.

Happy Contesting...Bob GM4UYZ

CPSARC 144MHz FOXHUNT RULES

Date	: AS PER YEARS EVENTS CALENDAR
Time	: MEET AT 6:30PM FOR A BRIEFING PRIOR TO A 7:00PM START
Place	: The CAR PARK at the Seafront (Where Old Pond Hall was) (From Edinburgh turn 1 st Left past the Garage) PORT SETON Grid Ref. NT408 759 ORDNANCE SURVEY LANDRANGER MAP No.66
Entry Fee	: £2:00 PER PERSON, TO BE DONATED TO THE CLUB FUNDS
Frequency	: 145.275MHz, FM, VERTICAL POLARISATION
Fox Call sign	: GM1PLY/M
Fox Power & Antenna	: MAXIMUM 1W : ANTENNA ¼ WAVE VERTICAL
Hunt Area	: THE FOX WILL BE LOCATED WITHIN THE AREA ON ORDNANCE SURVEY LAND RANGER MAP No.66 BOUNDED BY THE FIRTH OF FORTH TO THE NORTH, THE LINE JOINING GRID REF. NT560728 and NT560855 TO THE EAST, THE LINE JOINING GRID REF. NT370728 and NT370738 TO THE WEST. A SMALL MAP SHOWING THIS AREA WILL BE ISSUED TO ALL COMPETITORS AT THE START.
TX Times	: TRANSMISSIONS BY THE FOX WILL BE 30 SECONDS EVERY 5 MINUTES. THE FIRST TRANSMISSION BEGINNING AT 7:00PM, FOLLOWING TRANSMISSION TIMES WILL BE 7:05PM, 7: 10PM.etc. THE FINAL TRANSMISSION WILL BE AT 8:45PM AND WILL REVEAL THE LOCATION OF THE FOX AND THAT OF THE POST HUNT MEETING. (Normally the Lounge Bar in the Thorntree Inn)
Access	: THE FOX WILL BE IN A POSITION WHICH IS ACCESSIBLE BY CAR (4WD NOT NECESSARY!)
TX Ban	: NO TRANSMISSIONS, OTHER THAN THOSE OF THE FOX, SHOULD BE MADE ON THE HUNT FREQUENCY AT ANY TIME DURING THE EVENT
Vacate	: ONCE A TEAM HAS FOUND THE FOX THEY SHOULD LEAVE THE IMMEDIATE AREA AND SHOULD NOT TRANSMIT ON ANY FREQUENCY WHILE IN THE VICINITY OF THE FOX
Equipment	: ONLY ONE SET OF DF EQUIPMENT IS TO BE USED PER TEAM AT ANY ONE TIME.
Hunting	: DURING THE HUNT PLEASE TRY TO BE CONSIDERATE TO OTHER ROAD USERS WHEN CHOOSING YOUR STOPPING POINTS ANY TEAMS FOUND TO BE BREAKING THE ROAD SPEED LIMITS IN ANY AREA WILL BE DISQUALIFIED IMMEDIATELY SIMILARLY, ANY TEAMS FOUND TO BE BREAKING ANY OF THE ABOVE RULES WILL BE DISQUALIFIED
Winner	: "THE HYBSZER TROPHY" WILL BE PRESENTED TO THE DF WINNER. THE TROPHY WAS DONATED BY RON GM0NTL IN MEMORY OF BILL GORDON MM0BXK/GM8ZLI WHO DIED IN JANUARY 2010.



A higher resolution version of this map can be downloaded from <http://www.cpsarc.com/downloads>

Activity Report

April 2022 Activity Day – between 9th to 15th April

2022 00:00 to 23:59 – Every Day

Choices: One of the following

Your selected day within the week

Multiple days within the week

Every single day of the week

This was our Fourth Activity Day of 2022 where you can select one of the above during the one-week selected period..... so reports below on who or who did not manage to take part.

Activity Day Rules and updated log sheet for 2022 have now changed:

These can be found using the following link:

<http://cpsarc.com/downloads/>

Look under Downloads for the Downloadable files then you are all ready for the 2022 Activity Days.

The 2022 files are as follows.

[2022-ACTIVITY-FULL-WEEK-LOGSHEET-](#)

[V1.6](#)

[2022 New Monthly Activity Week Rules](#)

[V7](#)

Apologies first:

Bob MM0LBF

Nil Return again Bob. Still not well

Brian M0RNR

Nil return

Tom GM8MJV

Nil return

George MM0JNL

Sorry nothing for this month. I have been active on air, making a few contacts in Brazil and one in Uruguay. Just moved my mother into full-time care and my head is all over the place after 6-years with her under my feet and now not.

Reports:

Bob GM4UYZ

I managed to get on every day and the choice of operating was on Data and FT8. A remarkably busy week for me starting off with GMDX, then delivering a Foundation class via ZOOM, then my 70th birthday and finally great grandad babysitting duties. Having said that I really enjoyed getting on and finding that my Inverted "L" for 40/80M tunes on 10MHz (30M). Will certainly look more at 10MHz

Craig MM0NBW

This month's log more about quality than quantity. I managed an hour or so on the radio on Monday, having been tinkering with TX audio settings. First up was Slavko (S57DX) 59 – not much of a test. I am sure he could hear you 59 on a piece of wet string. I then had an extended QSO with Andy - HB9CVQ and Raimund - OE8ANK who helped me tweak the TX audio a bit more. Nice 59 plus each way from 200 W into my Franken dipole about 5 metres up on the corner of the house. Reports of audio quality were good at the start of the QSO, but after a bit of turning down the mic gain and moving the mic away from my mouth a little (old military habits die hard!), both said audio quality was much improved.

Jim MM0DXH

Spring has sprung, and the HF propagation is springing into action too. Activity week certainly encouraged me to fire up the radio and I managed to get into Java, Indonesia for a 12,000km + QSO on one of the days.

Keith MM0KTC

Only 2 QSO's this month

Andy MM0GYG

I was on FT8 for nearly two hours on 15m mostly and 17m and 20m and got no QSOs despite PSK reporter showing my signals were being received.

Rafe MM0RPX

Found time to get on the air a bit this month. Plan to do so more frequently from now on. Antenna is back up and operational. Mostly FT8 but did have a good SSB QSO with a chap in Slovenia.

Pete MM0INE

Just a few QSOs on 15m this month. Nice to see that band open. Doublet antenna is restored and functioning again so pleased about that.

Ronan MM0IVR

I've attached this month's activity log with contacts on the 10th, 11th, 13th, and 15th. Yet again, nothing unusual apart from one station in Ukraine who was grabbing some airtime while he could on the 10th. He wasn't on for long but worked a fair few stations in the time I listened.

For the second half of the week, Dot and I headed over to the Torridon area for a few days in the hills. I took some radio kit along with the intention of trying to do a couple of SOTA activations while we were there. You know how much Dot enjoys that 😊. The radio of choice this time was the tiny QCX-mini. They're just single-band radios so I brought two along - one for 20m and one for 40m. These were powered by 3 x 18650

(Continued from page 8)

cells which were a lot lighter than the big home-made 4S LiFePO4 packs that I've been using with the other radios. Using the 18650's, the QCX puts out just under 5 watts of power, dropping to about 3.5 watts as they discharge - plenty for a bit of hilltop CW.

SOTA hill number one was a Corbett called Beinn Damh (SOTA ref: GM/WS-111, Locator: IO77fl). This was my choice and promised to be a fairly easy walk..... Unfortunately it turned out to be a bit of a slog. The going was rocky further up the hill, with heavy cloud cover towards the top and zero views to reward us. There was, however, plenty of room on the summit so I set up the QCX with a 40m end-fed half wave strung over a 6m pole in a sort of inverted V affair. I had put an alert on the SOTA system earlier which meant that after a few CQ calls, the Reverse Beacon Network picked me up and I was automatically spotted on SOTA-watch. Despite being a good couple of hours later than my initial alert time, the system worked well, and I soon had 11 in the log on 20m and 3 on 40m including one summit-to-summit QSO with a station in France. Good results for the little QCX radios and a fun activation. Dot was still alive in the summit shelter when I finished although she was mumbling something about hypothermia.... or was that hypochondria?

No radio the next day as we were off on a low-level walk.

The 15th saw us hauling ourselves up Maol Cheandearg which is a Munro close to where we were staying. The walk in takes in a section of the Cape Wrath trail, past a well-kept bothy set in some stunning countryside. The hill itself has a bit of a scramble up loose scree which is my favourite thing in the world. Sorry, least favourite. Still, we managed, and were rewarded with some incredible views as we gained height.

Once on the summit (after another section of sandstone boulders) the views were amazing in every direction. Dot settled in the summit shelter with a flask of tea and ALL the snacks, while I set my stuff up a short distance away so as not to annoy the other five or six walkers who were already there. This would be the second outing for the little QCX radios.

Again, 20m and 40m were the bands of choice with the same antenna and power supply as the previous hill. I had put an alert on the SOTA system, so the RBN did its magic again and my CQ call was quickly answered. 17 contacts this time, with 11 on 20m and the other 6 on 40m. No huge distances again that day with mostly single-hop European stations as before. There were two summit-to-summits in there, one with Nick (G4OOE/p) on G/NP-003 in the North Pennines, and the other with

Gavin (GM0GAV/p) on GM/WS-020, about 80 km South-ish of me.

Reasonable results on both outings with the little QCX radios, proving that you really don't need much power up on them thar hills, particularly on CW.

Martyn MM0XXW

Not a superbly interesting list this month but I'm keeping my totals ticking along!

Colwyn MM0YCJ

I managed to get out for a day on Thursday 14th April when travelling back home to Edinburgh. We were passing the English Lake District and planned to stop off to see an old friend who has been unwell. It was a simple journey off the M6 at Penrith and follow the A66 to just before Blencathra. Turn north passing the village of Mungrisdale to Mosedale then head west, signposted to Swineside, to the end of the navigable road at a hump-back bridge over Grainsgill Beck.

The area is rich in mineral ores and has been mined extensively for many centuries with tungsten, lead, arsenic, and iron all being extracted. The most famous mine was the Carrock Mine, the only source of tungsten in Britain outside of Devon and Cornwall. The mine is situated in Grainsgill Beck on the southwestern flanks of Carrock Fell with the main mine entrance at a height of 340 metres. The mine was opened in 1854 but was only worked in periods when the price of tungsten was high, for example during wartime, the mine was worked extensively during both World Wars and the Korean War when supplies of Tungsten were threatened. The mine closed in 1981 and in 1988 the site was landscaped close to its original contours.

Once we had read about the local industrial heritage we set off up the steep east ridge of Knock where there was a good path that delivered us to the summit in just over an hour. The top of Knock (710m) has a small cairn and a large flat summit ideal for a SOTA activation with space for a portable antenna of any manageable dimensions.

There was a noticeable south westerly breeze, so we sat on the north easterly aspect of the top, to avoid inconveniencing any other walkers and I set up two resonant inverted-V dipoles; one for 40m and the second for 20m, but both on the same 5m telescopic fishing pole. Pegging and guying took a bit of time with two RG174 50 Ohm coax cables needed, one for each dipole. The radio was a Yeasu FT817 powered by an external 3S 2100mA LiPo battery (11.1 volts).

Over the last few weeks I had enjoyed good success on 20m, so I started calling SSB on 14.285MHz just before 15:00hours BST, 14:00 UTC. Take off south was good, and I spoke with three Spanish stations (EA4BOC, EA2DT

(Continued on page 10)

(Continued from page 9)

and EA3EVL), a Portuguese station; CT1DIZ, a regular French station; F4WBN and an Austrian station; OE5EEP. The Portuguese QSO was the furthest at 1840Km, not too bad for 5 watts output.

The band went quiet, so I switched to the 40m antenna and started calling on 7.118KHz with a resulting 8 contacts. First was Lars (SA4BLM), three UK stations (M0BKV, G6PJZ/P and G0VWP). The portable station was another SOTA activator, Andy on Great Whernside (Ref; G/NP-008) so a successful summit-2-summit con-

tact which is always good to log. The other four were a Slovak station (OM1AX), the furthest at 1553Km on 40m, two Belgian stations (ON5MA and ON7ZM) and a new German station with our first QSO (DL9ZHG).

We had an appointment to keep so after the initial flurry of activity, I packed away the portable station and we had a gentle decent down the Cumbria Way footpath on the north side of Grainsgill Beck and back to our parking place. A CPSARC activity day snatched as we journeyed home, what could be better?

Summary

DATA is the winning mode this month with 198 QSO's (12 – FT4, 186 – FT8), next best was CW with 33 QSO's.

Out of the 259 QSO's = 259 where: CW = 33, SSB = 28, DATA = 198, FM = 0, AM = 0.

Best DX for the week for each Mode highlighted below:

HF CW, DATA & SSB

CW	Sat	0	0	0	0
	Sun	14	IT1TIT	1854	MM0IVR
	Mo	0	0	0	0
	Tue	0	0	0	0
	We	14	OM1AX	1808	MM0IVR
	Thu	14	EH4WRD	1733	MM0XX
	Fri	14	S57S	1872	MM0IVR

Logged DATA QSO's were FT8 (186) & FT4 (12)

SSB	Sat	14	PY6RT	8270	MM0KTC
	Sun	18	UR5IBD	2438	MM0IVR
	Mo	7	TI2CF	8515	MM0KTC
	Tue	21	XE1CQ	8641	MM0INE
	We	0	0	0	0
	Thu	14	CT1DIZ	1840	M0YCI/P
	Fri	14	S51DX	1648	MM0RPX

VHF CW, DATA & SSB – No QSO's

FM	Sat	0	0	0	0
	Sun	0	0	0	0
	Mon	0	0	0	0
	Tue	0	0	0	0
	Wed	0	0	0	0
	Thu	0	0	0	0
	Fri	0	0	0	0

(Continued from page 10)

A good turnout out this month with a total of ten people taking part although Andy MM0GYG didn't manage to make any QSO's, not for the sake of trying!!! Keep it up folks..... Thanks to everyone for your logs they are so much appreciated.

Below is something I have been looking at more for curiosity's sake is to see the most active days of the week that people take part in the Activity Week and on what modes.

Total QSO's Per Day

Day of the	Total QSO's	MODE				
		AM	CW	DATA	FM	SSB
Sat	6	0	0	5	0	1
Sun	77	0	1	72	0	4
Mon	29	0	0	24	0	5
Tue	19	0	0	16	0	3
Wed	28	0	14	14	0	0
Thu	43	0	1	28	0	14
Fri	57	0	17	39	0	1
	259					

The next Activity Day is any day starting on the week beginning the 7th and ending on the 13th May 2022 the fifth for 2022. Remember to use the new recording spreadsheet for your logs [2022-ACTIVITY-FULL-WEEK-LOGSHEET-V1.6](#) which can be downloaded from the website.

Participants

Summary of who did what:

Total QSO's = 259 where: CW = 33, SSB = 28, DATA = 198, FM = 0, AM = 0.

Bob GM4UYZ	DATA: 30 x 40M, 10 x 60M, 40 x 20M, 12 x 17M, 7 x 15M
Jim MM0DXH	DATA: 16 x 40M, 40 x 20M, 8 x 17M, 3 x 15M
Colwyn M0YCI/P	SSB: 8 x 40M, 6 x 20M
Keith MM0KTC	SSB: 1 x 40M, 1 x 20M
Craig MM0NBW	SSB: 3 x 20M
Andy MM0GYG	DATA: Was on but never managed to work anyone
Rafe MM0RPX	DATA: 19 x 20M SSB: 1 x 20M
Pete MM0INE	SSB: 3 x 15M
Ronan MM0IVR	CW: 9 x 40M, 23 x 20M SSB: 2 x 40M, 2 x 20M, 1 17M
Martyn MM0XXW	CW: 1 x 20M DATA: 8 x 30M, 5 x 20M

(Continued on page 12)

DATES FOR YOUR DIARY FOR ALL OF 2022 ACTIVITY WEEKS

Note: There are changes for 2022 where you can take part every single day of the week, or multiple days or just a single day. There is a new recording spreadsheet which is downloadable from the club's website download section and comes into effect on the 1st January - 2022-ACTIVITY-FULL-WEEK-LOGSHEET-V1.6.xlsx

Thanks for taking part in the activity day week and I hope you will continue to do so in May 2022 and the rest of 2022. The dates for the 2022 are now set, see the above table so would love to see many more on as well so why not make it your 2022 target.

Bob GM4UYZ

<u>MONTH 2022</u>	<u>ACTIVITY WEEK</u>
May	<i>7th to the 13th May</i>
June	<i>11th to the 17th June</i>
July	<i>9th to the 15th July</i>
August	<i>13th to the 19th August</i>
September	<i>10th to the 16th September</i>
October	<i>8th to the 14th October</i>
November	<i>5th to the 11th November</i>
December	<i>10th to the 16th December</i>

Club Attire

The club has a design for Club T-shirts, Polo-shirts, Sweat-Shirts, Fleece and Jackets and all of these can be obtained from Patricia Bewsey Designs

When making an order please quote 'Cockenzie & Port Seton Amateur Radio Club' to ensure that the Club Logo will be placed on the required garments.

Cost will depend on garment and should cover the garment and logo, call sign addition will be extra.

If you wish to add your call sign to the logo then please ask at the time of the order.

Order from:

PATRICIA BEWSEY DESIGNS,

Tel/Fax: 01620 850788

Mobile: 07970 920431

Email: patricia.bewsey@gmail.com

Note: the shop at Fenton Barns is now closed

Contest Calendar

For anyone interested in contesting there is something for everyone. Contesting is not just about winning although that is the aim; it is about taking part, having some fun, honing your operating skills, helping you understand propagation and It is also a good opportunity to test out your station at home to see how it is performing.

Happy Contesting.....

**** PLEASE NOTE THAT DUE TO THE CORONAVIRUS SOME CONTESTS MAY NOT HAPPEN
OR COULD BE RESTRICTED IN NATURE i.e. NO MULTI-MULTI STATIONS ****

May 2022

AGCW QRP/QRP Party	1300Z-1900Z, May 1
ARS Spartan Sprint	0100Z-0300Z, May 3
VHF-UHF FT8 ACTIVITY – 144MHz	1700Z-2100Z, May 4
MIE 33 Contest	2300Z, May 4 to 0300Z, May 5
10-10 Int. Spring Contest, CW	0001Z, May 7 to 2359Z, May 8
RCC Cup	0300Z-0859Z, May 7
SBMS 2.3 GHz and Up Contest and Club Challenge	0600 local, May 7 to 2359 local, May 8
SKCC Weekend Sprintathon	1200Z, May 7 to 2359Z, May 8
ARI International DX Contest	1200Z, May 7 to 1159Z, May 8
7th Call Area QSO Party	1300Z, May 7 to 0700Z, May 8
RSGB 432MHz Trophy	1400Z-2200Z, May 7
RSGB 432MHz to 245GHz Contest	1400Z, May 7 to 1400Z, May 8
Indiana QSO Party	1500Z, May 7 to 0300Z, May 8
Delaware QSO Party	1700Z, May 7 to 2359Z, May 8
New England QSO Party	2000Z, May 7 to 2359Z, May 8
RSGB 10GHz Trophy	0800Z-1400Z, May 8
4 States QRP Group Second Sunday Sprint	0000Z-0200Z, May 9
RSGB 80M CC SSB	1900Z-2030Z, May 9
VHF-UHF FT8 ACTIVITY – 432MHz	1700Z-2100Z, May 11
CQ-M International DX Contest	1200Z, May 14 to 1159Z, May 15
VOLTA WW RTTY Contest	1200Z, May 14 to 1200Z, May 15
RSGB 70MHz Contest CW	0900Z-1200Z, May 15
Run for the Bacon QRP Contest	2300Z, May 15 to 0100Z, May 16
RSGB 80M CC DATA	1900Z-2030Z, May 18
NTC QSO Party	1900Z-2000Z, May 19
NZART Sangster Shield Contest	0800Z, May 21 to 1100Z, May 22
His Maj. King of Spain Contest, CW	1200Z, May 21 to 1200Z, May 22
Arkansas QSO Party	1400Z, May 21 to 0200Z, May 22
RSGB 144MHz May Contest	1400Z, May 21 to 1400Z, May 22
RSGB 1st 144MHz Backpackers	1100Z-1500Z, May 22
Baltic Contest	2100Z, May 21 to 0200Z, May 22
QRP ARCI Hootowl Sprint	0000Z-0100Z, May 23
SKCC Sprint	0000Z-0200Z, May 25
RSGB 80M CC CW	1900Z-2030Z, May 26
CQ WW WPX Contest, CW	0000Z, May 28 to 2359Z, May 29
RSGB 70MHz Cumulatives #3	1400Z-1600Z, May 29
RSGB FT4 Contest	1900Z-2030Z, May 30

HF Propagation Prediction

HF Propagation Prediction May 2022

Summary

Conditions improving as daylight periods lengthen. Best chance of DX – Asia and Americas using CW/Data on 40, 30 and 20 metres during most periods.

Best SSB phone DX – 40 meters during darkness and 20 metres during daylight - Asia, Africa and Americas.

Best inter G SSB phone QSO's are, as expected on 80 metres throughout the 24 hours. Some possible on 20 and 40 metres.

12 and 10 metres are predicted to be closed, but there have been opportunities for SSB during daylight hours, late morning to early evening, with CW/Data a couple of hours either side of these times. Recent sporadic E activity has been evident on these bands, with activity extending into the later evening for CW and data modes. South America has been noted on 10 metres late afternoon/early evening.

Long Term Solar Summary – April 2022

Solar Cycle 25 seems to be off to a better start than predicted, with sunspots slightly higher. Cycle 24 reached minimum in December 2019 and peaked in April 2014 with a peak average of 82 sunspots. Solar Cycle 25 was predicted to have a slow start and anticipated to reach maximum between 2023 and 2026. Consensus is that it will peak in July 2025 (plus/minus 8 months). Solar Flux (SFI) is predicted to tip over 100 in January 2023.

Cycle 25 is predicted to be similar to Cycle 24 with a weak peak activity – 95 to 130 sunspots, which is below average of 140 to 220 sunspots.

Solar activity has been building the past two to three months, Solar Flux Index has been consistently higher leading to improved HF conditions, but a number of class 1 events being noted along with earth directed CME's causing minor disruption to HF communications. Prediction is that a larger event may occur within the next few months.

Average predicted Solar Flux Index = 116 (low moderate)

Average predicted Kp index = 3 (low to moderate)

Average predicted A index = 8

Kp of 3 and A of 8 = quiet to unsettled conditions

Sunspots and Propagation

Frequencies above 15 MHz (17 metres amateur band and shorter) will open sporadically. 40m is more likely to stay open all night and should produce good DX. 80m can also produce some DX possibilities. Best DX is likely to be on 20 metres at all times. As solar activity picks up, this will lead to more D layer absorption, weakening 160, 80 and to some extent 40 through daylight hours.

Solar flux indicates the level of ionization above around 10 MHz. MUF seldom drops below 10 MHz as solar flux does not affect frequencies below this. Solar flux varies from around 50 at solar minima to 300 solar max.

Kp index indicates the prevailing geomagnetic conditions primarily resulting in HF noise on frequencies mostly below 10 MHz. During a storm, high noise on 40 M doesn't necessarily mean high noise on 20 M. K index is between 1 (very quiet) to 9 (major storm)

A index is a linear measure of the earth's magnetic field and is derived from the K index averaged over a 24 hour period. Ranges from 0 to over 400 during a severe geomagnetic storm.

Usual caveats apply; This information is a broad summary from a number of sources using models based on historical and predicted data using ideal antennas with some allowances made for location, QRM and QRN.

Band conditions fluctuate constantly and may improve or deteriorate at any time. Predictions are short-path propagation.

SSB predictions are based on combined path reliability (REL) and S/N ratio predictions above 65%. CW/Data combined REL and S/N ratio above 35%. Modelled on 100W SSB – Dipole at 15 ft. Your equipment may be more or less efficient than the model which will negatively or positively impact real results.

(Continued on page 15)

(Continued from page 14)

Unpredicted QSO's are always possible, so use this information as a guide only, in conjunction with DX Cluster spots and your own ears!

Modelled on 100W SSB – Dipole at 15 ft. All times UTC.

80 Metres - 3.5 MHz

00:00 – 07:00	SSB QSO's Inter G, Ireland and Northern/Central Europe and Baltics. Possible SSB to Western Russia and Eastern Canada. CW/Data modes may be possible to North Africa, eastern Canada, eastern USA and Arctic Circle.
07:00 – 17:00	SSB QSO's limited to a couple of hundred miles. CW/Data modes may reach Northern Europe.
17:00 – 23:00	SSB conditions build from around 18:00 with good inter G and Northern Europe, Baltics and eastern Canada. CW/Data modes possibly extending out to Eastern North America and Greenland, north Africa and European Russia towards mid-night.

40 metres - 7 MHz

00:00 – 07:00	SSB QSO's in Northern Europe, North Africa, Baltics and European Russia. Eastern Canada and Central America possible. CW/Data modes may be possible to, South America and eastern USA. Diminishing around 06:00
07:00 – 17:00	SSB reducing to Europe and inter G as the day progresses. CW/Data modes possible into north Africa, Baltics and western Russia, but again reducing to inter G late morning.
17:00 – 23:00	Mid evening sees SSB in Europe, north Africa, Eastern Canada, European Russia and inter G, building westwards as the evening progresses. CW/Data modes to North and South America, north Africa, India, central and western Asia towards midnight.

30 Metres - 10 MHz – CW & Data only

00:00 – 07:00	CW/Data modes good to southern Europe, Africa, eastern Canada and USA, central and south America and western Asia.
07:00 – 17:00	CW and Data modes good throughout Europe, North Africa and European Russia.
17:00 – 23:00	CW/Data modes good through Europe and Africa, western Asia, India. Moving westwards, south America possible from around 21:00

(Continued on page 16)

(Continued from page 15)

20 Metres - 14 MHz

00:00 – 07:00	Midnight until around 02:00, SSB possible to south America, north Africa, Hellenics and Baltics. CW/Data possible to south and west Africa. Then band effectively closed until around 06:00 when SSB possible to southern Europe, north and central Africa. CW/Data possible to Asia.
07:00 – 17:00	SSB good into central and southern Europe, Greenland and Baltic states, North/Central Africa and South America. SSB may be possible into east Asia and USA late afternoon. CW/Data modes into Africa and south and central America, eastern Australia, Asia, Japan, China and India. USA/Canada late afternoon.
17:00 – 23:00	Early evening sees SSB in Europe, Africa, Arabian peninsula Asia, possibly India moving westwards to South America Early evening also sees CW/Data possible to east Asia, Africa and south America.

17 Metres - 18 MHz

00:00 – 07:00	Band closed until around 06:00 with CW/Data possible to Africa and southern India. SSB may be possible to north Africa, Hellenics and south Africa around the same time.
07:00 – 17:00	SSB possible to southern Europe, South America, south Africa and Indian ocean. CW Data modes possible to Australia, Indonesia, India and Antarctica until around 15:00.
17:00 – 23:00	SSB possible to southern Europe, South and central America and Africa until around 20:00, then SSB good to south America until around 23:00.

15 Metres - 21 MHz

00:00 – 07:00	Poor conditions - Band effectively closed.
07:00 – 17:00	SSB possible to Southern Europe, north and south Africa and Indian ocean building through the day. Potential for SSB to south America/ south Atlantic late in the period.
17:00 – 23:00	SSB possible to South America, Africa and southern Europe until around 22:00 when band closes.

12 Metres - 24 MHz

00:00 – 07:00	Poor conditions - Band closed.
07:00 – 17:00	Poor conditions – possible SSB, CW/data to South Africa, and southern Europe from around 13:00
17:00 – 23:00	SSB- South Africa, south America, north Africa possible until around 21:00

(Continued on page 17)

(Continued from page 16)

10 Metres - 28 MHz

00:00 – 07:00	Poor conditions - Band closed.
07:00 – 17:00	Poor conditions - Band closed.
17:00 – 23:00	Possible CS/Data to south Africa and south America from 18:00 – 21:00 when band closes. There is a small possibility of SSB during the same period.

Data from

Prop Charts

<http://infotechcomms.net/propcharts>

VOACAP Online

<http://www.voacap.com/hf/>

ITURHFProp

<http://www.predtest.uk/index.html>

Solar Cycle

[Forecast Discussion | NOAA / NWS Space Weather Prediction Center](#)

[27-Day Outlook of 10.7 cm Radio Flux and Geomagnetic Indices | NOAA / NWS Space Weather Prediction Center](#)

Sunspot Watch

<http://prop.hfradio.org/>

CLUBLOG TABLES

The clublog table for 2022 is now well underway.

Gordon MM0GPZ takes the lead with 129 DXCC.

You can join in at any time, simply sign up to clublog.org, submit your log and join the CPSARC club there (members only)

John MM0JXI

Rank	Callsign	160	80	60	40	30	20	17	15	12	10	6 DXCC	Slots	Range
1	MM0GPZ	59	40	0	60	0	79	6	79	1	25	0	129	349 17 yrs
2	MM0XXW	0	29	23	31	45	58	25	42	49	17	0	105	319 16 yrs
3	MM0DXH	0	4	0	28	3	77	26	54	3	7	0	94	202 19 yrs
4	M0RNR	0	7	6	22	12	30	18	27	1	35	1	86	159 23 yrs
5	GM4UYZ	0	8	0	13	6	27	19	19	5	1	0	45	98 42 yrs
6	2M0EGH	0	1	0	40	0	16	1	0	0	0	0	41	58 0 yrs
7	MM0NBW	0	0	0	18	0	29	3	9	4	0	0	40	63 5 yrs
8	MM0GYG	0	1	0	5	0	5	7	5	2	1	0	19	26 13 yrs

Website update

If you have recently logged onto the www.cpsarc.com you will have noticed the website has changed and this was caused by an issue with Wordpress. John has been working on restoring the site back to where it was, or as near as he can get it as some of the internal wordpress plugins are no longer available.

then click on the Smash Balloon Wordpress and tick the boxes to allow it to share your name and photo then click Save. (the default is all sharing is off unless you tick that box).

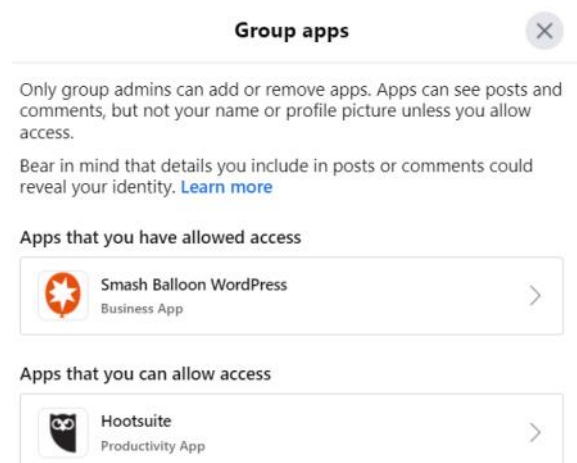
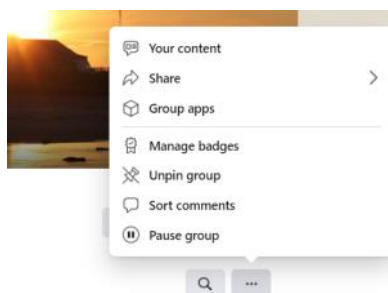
Bob GM4UYZ

One thing that has changed is the ability to log in to the site to place for sale posts.

All existing user IDs have been removed during the recent restart of Wordpress.

If you'd like a new account to post on the For Sale page, please email webmaster@cpsarc.com and we'll sort that out for you (self-service registration is disabled due to abuse from spammers)

If you'd like your Facebook posts which appear on cpsarc.com to include your name and avatar, you need to personally give the app that drives this, permission by going to the CPSARC group on Facebook, click on the menu button (...) and choose 'Group Apps'



TEST YOUR KNOWLEDGE

1. Input power is measured in

- a. Amperes
- b. Volts
- c. ohms
- d. Watts.

2. A filament bulb is placed in a continuous circuit with 12 Volt battery and glows. What is the effect if the battery is replaced with a 12Volt alternating current source?

- a. The bulb goes out.
- b. The bulb will glow brightly and burn out.
- c. The bulb will glow very faintly.
- d. The bulb will continue to glow as before.

3. The United Kingdom's mains electricity supply has a frequency of

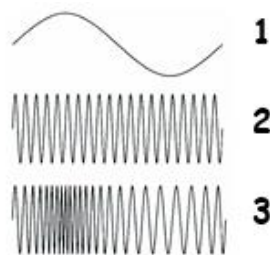
- a. 50Hz
- b. 60Hz
- c. 100Hz
- d. 50Khz

4. "Top Band" is the name amateurs sometimes give to the 160 metre band. To what frequency band does this relate?

- a. 1.81MHz - 2.0MHz
- b. 3.5MHz - 3.8MHz
- c. 7.0MHz - 7.1 MHz
- d. 14.00MHz - 14.35MHz

5. Which waveform in the diagram represents the carrier?

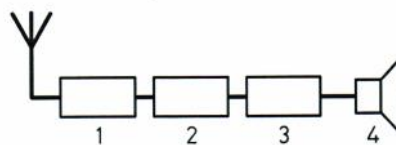
- a. Waveform 1.
- b. Waveform 2.
- c. Waveform 3.
- d. None of them.



6. An amateur decides to change the frequency band of operation but forgets to check the antenna matching. An effect of this may be that the

- a. antenna is overloaded
- b. wrong frequency is transmitted
- c. transmitter may be damaged
- d. transmitted signal sounds distorted.

7. The connection between block 1 and block 2 in the block diagram of a radio receiver will be carrying



- a. a large number of radio signals on different frequencies
- b. a single radio signal that has been amplified
- c. lots of different audio signals
- d. just one audio signal.

8. The screen of a coaxial cable must be properly connected to the body of a PL259 plug in order to

- a. prevent water getting in
- b. confine the signal within the cable
- c. stop the cable coming apart
- d. make a neat appearance.

9. Which one of the following antenna can focus the radio signal in a particular direction?

- a. Dipole.
- b. End fed.
- c. Ground plane.
- d. Yagi.

10. One reason for matching the output of a transmitter to an antenna is to

- a. improve the frequency drift characteristic
- b. improve frequency stability
- c. save d.c. input power
- d. ensure maximum power is transferred to the antenna.

Club Events

6 May 2022	Club Night
7-13 May 2022	Activity Week
27 May 2022	1st 144MHz DF Hunt
28 May 2022	Port Seton Gala Day
3 June 2022	Club Night
11-17 June 2022	Activity Week
18/19 June 2022	Museums on the Air
24 June 2022	Club Night (early due to VHF Field Day)
2/3 July 2022	RSGB VHF Field Day
9 –15 July 2022	Activity Week
30/31 July 2022	RSGB IOTA Contest
5 August 2022	Club Night
12 August 2022	Mini Rally
13-19 August 2022	Activity Week
20/21 August 2022	Lighthouses Weekend
2 September 2022	Club Night
10-16 September 2022	Activity Week
16 September 2022	2nd 144MHz DF Hunt
7 October 2022	Club Night
8-14 October 2022	Activity Week
29/30 October 2022	CQWW SSB Contest
4 November 2022	Club Night
5-11 November 2022	Activity Week
2 December 2022	Club Night
3 December 2022	Christmas Night Out
10-16 December 2022	Activity Week