

IOTA Contest 2023 – What to Look Out For

Of the events in a typical radio sport calendar, the IOTA Contest is a standout: it's the RSGB's premier contest (sorry, 'BERU'), is truly international in nature, is very well subscribed (especially in Europe and Japan), and has islands/island groups ('IOTA references') as multipliers, instead of DXCC entities.

Not only are there possible plaudits for contest operation, but you can use the weekend's event to work your way towards certificates, plaques and trophies offered as part of the IOTA Programme (<https://www.iota-world.org/>), and potentially get more DXCC credit, to boot. If you're an island chaser, the IOTA Contest encourages activation of many IOTA references that would otherwise be silent for lengthy periods of time.

[Clarification of Definitions:

'Island stations': these are stations which operate from land masses covered by IOTA references. For instance, the IOTA references for mainland Great Britain and mainland Ireland/Northern Ireland are EU-005 and EU-115, respectively. Please note that some of the islands surrounding the GB coastline, like Brownsea Island or the 'big' island of Anglesey, do not qualify as islands separate from the mainland under IOTA rules; both of these are covered by EU-005.

'Islands': From this point, the term 'island,' in the singular, refers to the specific land mass covered by a single IOTA reference, which may be several separate islands (e.g., EU-121, which covers several individual islands, not just, say, Arranmore, where the Contest Group has operated from before). When used in plural, 'islands' refers to numerous discreet IOTA references.

'Rare Island': in the context of the IOTA Contest – as opposed to the IOTA (awards) Programme, this would be an island that will be activated, but is likely to contain a handful of operating stations.]

Being on EU-005 helps...but being on a rare island would be better.

Stations operating from islands are rewarded for doing so, as there are incentives for operators to contact them: a multiplier is earned for every IOTA Reference+Band+Mode combination; there are 15 points for contacting an island station (unless the two stations working each other happen to be on the same IOTA, in which case both stations earn themselves five points, each); contacting a 'world' (i.e. non-island) station from an island station results in 5 points, whereas two world stations working each other would gain only two points, each. The bottom line is that it pays to operate from an island.

But it pays even more when you operate from a 'rare' island, on which there are few other operators to compete for the attention of would-be callers, keen to work your island. Unfortunately, Great Britain (EU-005) is by no means a rare island. So, a GB station repeatedly calling CQ ('running') will, no doubt, be doing so in the presence of dozens of other EU-005 CQ callers. A responding station say, from Germany, wishing to get the EU-005 multiplier will, therefore, have a smorgasbord of choice in terms of stations to work in order to get the EU-005 mult. Chances are, our German operator will work another GB station, to get the mult, and move on.

If you're a smallish station (e.g. 100W to a G5RV) on EU-005, you will not be a great magnet for other stations to work you, as you won't be very rare, and won't be too loud (i.e. stand out), either.

So, you may want to spend a lot of me searching & pouncing (i.e., replying to CQ calls) relative to running. Being powerful (i.e., loud), like G5O, goes a long way to compensate for non-rarity.

If that GB station was, instead, on EU-121, ‘Irish Coastal,’ there would likely be only a single other station active in the island group, thereby giving responders much less choice of stations to work when calling EU-121 than they would when trying to get EU-005. The flipside of this is that our running station will now be much busier answering responders than it would be on EU-005.

Even a ‘Hundred Watts & a Wire’ station on a rare island can spend a lot of me running and will have plenty of traffic to work; even if you’re faint, other stations will seek you out by, say, using the Reverse Beacon Network. However, a lot of stations on rare islands may not get around to working you, so you will s ll have to spend me searching & pouncing. (See the ‘Active IOTAs’ table on the following page may help with the timing of S & P.)

Bands to use during the contest (Europe)

For most of the me, you will not be ‘swinging for the fences,’ working DX; much of the activity will involve island and world stations in Europe. Up to half of the active European islands will be within 1000km of Manchester, making them a challenge to get on 14MHz and above, given the likely propagation conditions on the weekend (high sunspot count, but disturbed geomagnetic field).

I have divided Europe’s Island groups, and shown what bands are likely to be open to those regions (from Manchester) during daylight and nighttime hours. As the table below indicates, there are few places where 21 and 28MHz signals are likely to go. That said, the sporadic E season is still going, and this mode may compensate for the – forecastable, yet inadequate – F-layer of the ionosphere at this point in me. This is really the essence of contes ng: exploiting unusual propagation.

Eu Region	Prefixes Covered	3.5	7	14	21	28
UK/Ireland	EI, G, GD, GI, GM, GW	Blue	Orange			
North Sea	DL, LA, OZ, PA	Blue	Purple	Orange		
Channel Is/B. Biscay	EA1/2, F, GJ, GU	Blue	Purple	Orange		
Atlan c Eu	CN, CT3, CU, EA8, S0	Blue	Blue	Orange	Orange	
Scandi N/Russia NW	JW, OY, R1, TF, TF7	Blue	Blue	Orange		
Bal c	DL, ES, LA, OH, OZ, SM, SP	Blue	Blue	Orange		
Mediterranean W	3V, 7X, 9A, 9H, CT, I, IT9, IH, EA, F, TK	Blue	Blue	Orange	Orange	
Med. E/Black Sea	5B, LZ, UA6, SU, SV, UR, YO, TA		Blue	Purple	Orange	

Blue	Night operation, only
Purple	Day and Night operation
Orange	Day me operation, only

IOTA 2022 Island CQ Calling Activity (CW)

The following table, generated with RBN data, shows the number of individual EU IOTA references that were active on CW for at least some of the me on each band in each hour block of the contest. (I

suspect that the pattern for SSB will be similar.) This is to give some indication of the multi-gaining potential when S&P'ing during particular periods of 2023's contest. For example, the centre cell in the top row shows that stations covering no fewer than 47 EU IOTAs were calling CQ on CW for at least part of that initial hour of the 2022 event.

The redder a cell is, the closer its value is to the peak value of the particular band.

Active IOTAs on each band, each hour (CW)
2022 Contest

	80m	40m	20m	15m	10m
1200	0	0	47	28	8
1300	0	4	46	32	15
1400	0	8	43	40	24
1500	0	9	40	39	24
1600	0	17	38	30	16
1700	1	24	39	21	6
1800	4	31	40	17	4
1900	9	37	39	7	0
2000	18	38	39	1	0
2100	26	36	29	1	1
2200	35	32	26	1	0
2300	31	29	26	0	0
0000	30	35	18	0	0
0100	24	34	13	1	0
0200	23	25	18	0	0
0300	23	24	21	0	0
0400	21	33	26	2	1
0500	11	34	28	11	1
0600	1	28	41	26	12
0700	0	16	32	32	27
0800	0	15	29	33	32
0900	0	2	31	38	34
1000	0	2	23	34	34
1100	1	4	27	34	24

Island groups outside of Europe

The table on the following page summarises forecasts from VOACAP, showing likely openings on various band/location combinations, as well as comments on aspects like ideal times to work mults.

	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
40m																								
The Americas																								
Med + E Baltic																								
E Asia																								
Persian Gulf																								
20m																								
W1/W4/Caribbean																								
W6																								
E Asia + India																								
Persian Gulf																								
Hawaii through ZL																								
Mediterranean																								
15m																								
W1/W4																								
Caribbean																								
S Am																								
Pers. Gulf																								
East Asia																								
Hawaii																								
ZL																								
10m																								
S Am																								
E Med																								
EAS																								
SE Asia																								

(NA mults peak at 0100)

(NA mults peak 2000-2200)

(Significant AS mults during this period)

(Around the dock)

(NA mults peak late afternoon)

(Around the dock)