

Contesting



PHOTO 1: Alan, GM4ZUK's portable contest station with mobile tower ensures a competitive entry in many contests.

There will always be constraints when operating from home, which can be frustrating and limit progress. Also, the scoring structure in some contests may make your home location and callsign less desirable for others to contact, for instance it's not a rare DXCC multiplier, island or QRA square, depending on the contest of course; that's why many contesters look to alternative operating locations, either as a single-operator or as part of a group multi-operator effort.

Home contesting

There are many advantages from operating from home:

- Proximity.
- Home comforts (especially during 'weekenders').
- Support from family when required (drinks, meals).
- Operating knowledge of equipment and antennas.
- Ability to configure the station to your own operating preferences.
- Little setup required before each contest.
- Dip in and out of the contest as you wish, set your own operating pattern.
- You are likely to do more contests, simply due to ease of access.
- A great place to practice and improve as time allows.

However, there are factors making home less desirable to operate from:

- Interruptions from family.
- Limitations on antenna size and/or planning constraints.
- Interference eg electrical noise, VDSL etc.
- Lack of shack space and an inability to expand the station.

These are logistical considerations but consider also specific contest rules, particularly the scoring regime and multipliers: *how desirable is a contact with your station to other contest entrants?* For instance:

In the CQWW contests where CQ zones and DXCC entities are multipliers, dozens of stations from England will be on the air. Everyone wants to work multipliers, however only the first one on each band counts and further contacts carry 'normal' points. Whereas, the UK's crown dependencies (GD, GJ, GU) are somewhat rarer and will experience larger pileups as people chase the multiplier. Take this further: operate from a rare DXCC entity *and* a rare zone and it's an even more desirable operating QTH for CQWW.

Analysis of results shows that the most successful contestants in CQWW operate from outside the major ham-population areas ie outside North America, Asia and Japan. Not only are they in rarer countries and rarer zones but each QSO with those areas carries higher points than 'same continent' contacts.

In the IOTA contest, where island groups are multipliers, mainland Great Britain is designated as EU-005 and is very well represented; travellers to the rarer island groups will attract more callers. Similarly, in other contests, moving to a rarer QRA square or post-code district may result in more callers.

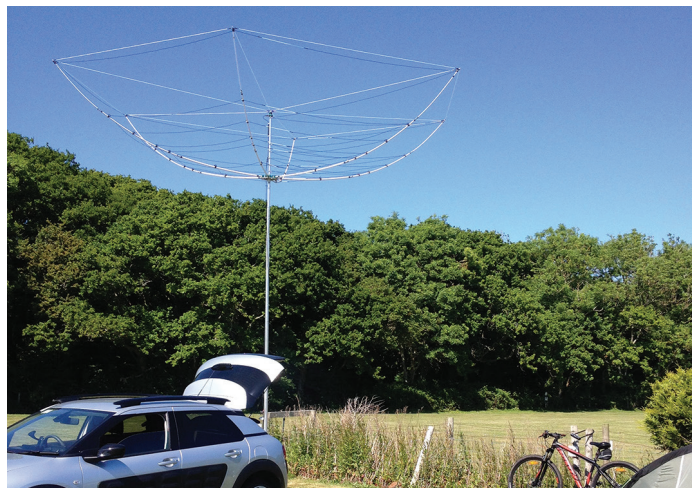


PHOTO 2: Pawel, MODSE regularly enters the IOTA contest from a tent, with power coming from the camp-site supply.

Now we have established reasons why you may wish to operate from somewhere other than home, let's look at the options.

Portable Contesting

Many of the bigger HF contests are in winter to coincide with improved propagation in the northern hemisphere, but there are a few contests held in the summer months that can be fun if combined with a hike, camping or motorhome excursion. Stand out contests in the warmer months include the RSGB Field Days (CW in June, SSB in September), UKEI DX (CW and SSB events), RSGB International Low Power and the IOTA contests (both in July), in addition to many 80m Club Championship events and other international contests.

Portable contesting presents its challenges:

- Finding a suitable QTH with land-owner permission.
- Size and weight of equipment.
- Operating comfort.
- Power source.
- Deploying an effective antenna, particularly for DX contests.
- Keeping people away from the antenna (physical and RF risks).

When seeking an operating location, consider likely propagation from the site. Sloping ground towards the target area can enhance signals, as can getting close to salt-water. It's always good to have a choice of antenna, for example having a dipole and a vertical to switch between adds options. To keep weight down, look at wire antennas with jumpers to change band.

Some portable operators are lucky enough to have trailer-towers and can deploy a reasonably competitive station, however that can take considerable time to build on each outing. At the other end, many operators get great enjoyment from simple QRP contesting from a hill-top or field, some even using solar power. **Photo 1** shows Alan, GM4ZUK's mobile setup on 4m, he changes antenna depending on the contest he's entering. **Photo 2** shows Pawel, MODSE's portable setup from the Isle of Wight in the IOTA contest.

Mobile Contesting

While it is not illegal to use a two-way radio when driving, you have a responsibility to maintain proper control of the vehicle – contest operating

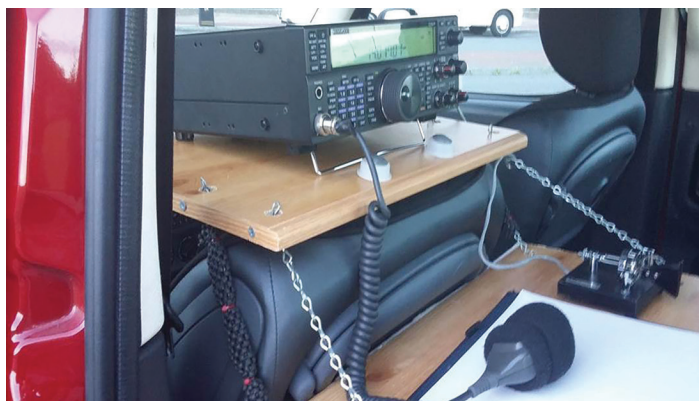


PHOTO 3: Alan, G4NXG's mobile shack has evolved to provide comfort and ease of operating.

is only appropriate while stationary. Due diligence should be taken in public areas where proximity to the antenna may present a physical and RF hazard to bystanders. Operating from a car can be convenient and give access to places where setting up a portable station may not be convenient; Alan, G4NXG is an experienced mobile operator and gives the following great advice:

- For comfort, sit in the rear seat, clear of the steering wheel, pedals etc.
- Build a 'workstation' (see **Photo 3**) with the seat supporting the structure holding your radio and logbook or laptop.
- To power a 100W radio use a deep-cycle leisure battery of at least 110Ah placed in the boot, it will give a few hours of operation, though data modes will drain it more quickly.
- There is no need to earth the negative terminal to the vehicle's chassis; use quick-release battery clamps to connect a suitably fused lead to the radio – the fuses should be close to the battery connectors.
- The antenna mount must be earthed to the vehicle chassis. Using an RF earth lead, which must be kept as short as possible to reduce inductive reactance, may be necessary.
- Do not use the vehicle's battery – it may breach the vehicle's warranty terms and if drained, may cause problems with the engine management system, central locking, lights and the airbags may be triggered.
- The ideal operating location is close to salt water with a clear low angle take-off. From the UK a site on the west coast is best for short path propagation to the Americas and Pacific, the east coast for Asia.
- Inland, seek out a hillside having a clear take off in the favoured direction. This usually proves better and is normally more accessible for the vehicle than the summit of the hill. Be aware of any adjacent heights that may obstruct the path of the signal.

Alan's favoured antennas are helically wound, resonant, mono-band whips pre-tuned to provide a minimum SWR around the contesting frequencies. It is important to remember that on lower bands, antenna bandwidth becomes narrower; some physical adjustment of the whip length may be necessary.

Rental accommodation

With such easy access to accommodation through sites like 'Airbnb', finding a good QTH for specific contests, whether in the UK or abroad has never been easier. But do your research first! Tools like Google Earth [1] and HeyWhatsThat! [2] are fantastic for studying the surrounding area's topology for antenna positions, coax lengths etc., but be aware of the visual and physical impact of antennas on passers-by and neighbours – not every Airbnb host will appreciate an antenna farm, it might be wise to check first.

For example, in November 2019 I hired an Airbnb in Madeira [3] for a week to partake in the CQ World-Wide CW contest. I was joined by my wife Janet (which provided extra carrying capability) and took wire antennas for doing a single-band entry on either 20m or 15m – it's always good to remain flexible. With a simple ground-plane and a dipole on fibreglass poles I managed third place in the world in the Single-Op, High Power, 15m category – it was a lot of fun and easy to organise, though I had spied out the property



PHOTO 4: John, G4IRN operating from an Airbnb in Madeira in CQ World-Wide.

on a previous visit to Madeira to assess its suitability, **Photo 4**.

In recent years, Ian, G3WGV and Bob, GU4YOX have separately met with contesting successes by renting accommodation adjacent to farmland, both submitting great single-band entries into various major contests. In 2023 as MJ5E (Jersey) Bob came 1st in world in the CQ World-Wide 160m DX CW Contest, a great achievement from a field-day style setup.

Guest Operator

Portable or mobile contesting takes time to organise and requires some specialised equipment. Another option, favoured by many who cannot operate competitively from home is to be a 'guest operator' from someone else's station – basically, you will be invited to partake in a particular contest either as a single-operator or as part of a team.

Of course, you usually need to be known to the host; also, to be part of a team effort you generally need some contesting experience or be willing to learn fast. The best way to get to know potential hosts is to get yourself known in contesting circles – participate in contests, join and participate in the UK Contesting and RSGB Contest Club email reflectors, attend contesting-oriented presentations at the RSGB convention, join the RSGB's GR2HQ contest team and otherwise get involved in any event that will raise your profile. As you progressively get known in contesting circles, you may even be lucky enough to be invited from an overseas contest station.

Rent-a-Shack

In the classified-ad pages of radio magazines one can often find shack rental opportunities. The ARRL's QST magazine usually has several such adverts, some of which are in quite exotic DX locations; Internet searches can also bring up possibilities. Standards of these rental-shacks can vary and don't always live up to expectation; if possible, get insight from a recent visitor. Personally, I've come across it all: promised equipment or antennas not available; equipment failing; electrically noisy QTH. 'Buyer beware' and do your due diligence beforehand.

Websearch

- 1: Google Earth: <https://earth.google.com/web/>
- 2: 'HeyWhatsThat' Path Profiler: <https://www.heywhatsthat.com/>
- 3: Chhttps://www.g4irn.com/home/dxpeditions/2019-madeira
- 4: UK HF Contesting email reflector: <https://ukhfcontesting.groups.io>
- 5: UK VHF Contesting email reflector: <https://groups.io/g/UKVHFContesting>
- 6: RSGB Contest Club email reflector: <https://groups.io/g/RSGBcontestclub>

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