Local Airspace for Glider Pilots

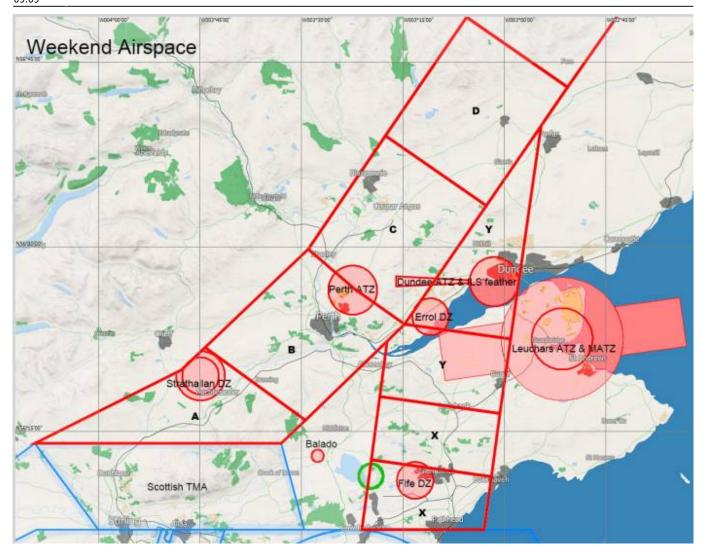
We are, by the standards of many UK clubs, blessed with relatively unrestrictive airspace at Portmoak. However it is also complex in that different limits apply at different times and in different circumstances. What's written here is an attempt to describe it from a glider pilot's perspective – it is not the law and may not be definitive – the UK IAIP on the NATS website is where you will find the authoritative version (among a very great deal else). These notes reflect the situation as we understand it as of mid-Feb 2020 so beware of changes that may occur after this date. It also goes without saying that any airspace may be temporarily changed by NOTAM – so always check before you fly. The NATS website is the primary source and there are various apps (such as NotamView, Spine etc.) which provide a graphical interface for easier interpretation.

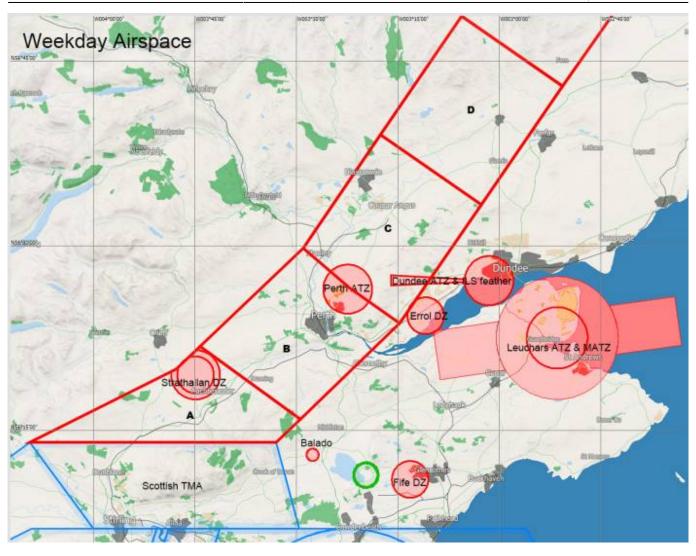
As a starter, all pilots intending to undertake cross-country flights or height gain badges should;

- Familiarise themselves with current maps and if flying beyond 10km/5nm of the airfield, carry a current aeronautical chart for the intended route.
- Carry and use a moving map loaded with the latest airspace particularly if wave flying. The latest airspace files can be accessed via the ASSelect webpage in a variety of formats.
- Check the NOTAMs for any temporary airspace changes
- Understand the specific airspace crossing procedures with or without transponders

1. Overview

The airways depicted are now all part of **TAY CTA** and individual segments are identified by the letter shown, e.g. our site is partially under '**TAY CTA X**'.





Text in **red** is applicable to weekend flights only.

- 1. Directly above the airfield is the weekend only airway **TAY CTA X**..
- 2. Immediately to the East of the airfield is the **Fife (Glenrothes) airfield and parachute drop zone**.
- 3. Immediately to the West of the airfield is the **Balado microlight and TMG site**.
- 4. Approximately 4 nm South of the airfield lies the **Scottish TMA and the Edinburgh CTR**.
- 5. Approximately 6 nm West of the airfield lies the Northern section of the **Scottish TMA**.
- 6. Approximately 7 nm Northwest of the airfield lies airway **TAY CTA A & B**.
- 7. There are **parachute drop zones** at Fife (Glenrothes) (a mere 4 nm E), Strathallan (c. 16 nm NW) and Errol (14 nm NNE).
- 8. There are **active airfields** at Fife (Glenrothes), Balado, Perth (Scone), Dundee and Leuchars.
- 9. Airway MORAY CTA running North South from the Scottish TMA towards Inverness.
- 10. All VFR traffic (which includes gliders) above FL100 is required to be transponder equipped and to use the transponder in mode C or S (altitude reporting) unless granted an exemption (for example by NOTAM).
- 11. All airspace **above FL195** is class C and gliders are excluded unless operating under the conditions of a special agreement or with a specific ATC clearance.
- 12. **Special Agreements**. There are four key arrangements which permit us to enter specific areas of controlled airspace by using specific procedures.

2. Detail

Here we look at more detail on the airspace factors shown above. Text in red is applicable to weekend flights only.

2.1 Airway TAY CTA X & Y

This exists every Saturday and Sunday regardless of anything else. The airway is directly overhead our airfield and Bishop Hill. Over the airfield it starts at FL65. If you are overhead or W of St Serf's Island in Loch Leven you are clear to the West of the airway. If you fly N along Bishop the base rises from FL65 to FL85 as you reach the bowl above Kinnesswood village.

From there on (the gully, West Lomond itself and all of the N face) you remain under that FL85 base. You need to be fully 1 mile W of the trig point on W Lomond summit before you are clear W of the airway.

This is an area where good wave often gets really going – usually in combination with strong head winds (low ground speeds) – so pilots need to be on their toes to avoid being carried upwards or backwards into the airway. Unless you have read and activated the airway crossing procedure **stay clear of this airspace under all circumstances at weekends**.

2.2 Fife (Glenrothes) Parachute Drop Zone and Flying Club

The parachute drop zone is active primarily at the weekend but **occasionally on ad-hoc weekdays**. At present this drop zone can be notified up to FL120 with the agreement of Scottish Control. The launch point caravan white board should indicate if the Fife Drop Zone is active, but remain clear unless certain it is inactive. Fife airfield also operates a busy commercial training operation/flying club and we should keep well clear of its circuit at all times. The status of the airfield and drop zone can also be checked in the air with a call to Fife Radio on 130.455.

2.3 Balado Microlight and Motorgliding Site

This site is on the other side of Loch Leven from the SGC and two miles West of Kinross – the large white "golf ball" radome is an unmissable landmark. This site has become busier over the last few years and pilots operating close to the site should exercise good airmanship and remain well clear of their circuit. A call on their channel 118.605 to let them know you are nearby is appreciated.

2.4 Scottish TMA and the Edinburgh CTR

At lower levels the Edinburgh CTR consists of a 20 nm diameter circle centred on Edinburgh airport, class D from surface to 6000 ft, surrounded by an angular box of the Scottish TMA which is a mixture

of class D and class E airspace below 6000 ft. Above 6000 ft the entire area is class D.

Gliders are permitted to fly in class E airspace so long as they maintain VMC – that is 1500m horizontally and 1000' vertically clear of cloud, with a flight visibility of 5km. Class E airspace is also used by IFR traffic which may be descending through cloud hence the need for VFR traffic to remain well clear of cloudbase.

Holders of RT licences may request permission to enter class D airspace from the appropriate air traffic controller. There is a letter of agreement giving gliders an improved chance of negotiating a clearance through the class D airspace to the West of the Edinburgh zone.

Please be aware of the proximity of the Northern boundary of the Scottish TMA/CTA/CTR. Thermalling off Benarty in a stiff N'ly wind can easily carry a glider into that airspace!

Finally, if your glider/TMG/aeroplane is fitted with a transponder and you are operating close to the TMA boundary then consider selecting Edinburgh Approach on channel 121.205 and the Edinburgh listening squawk of 0440.

2.5 Northern Section of Scottish TMA

This airspace, due West of Portmoak, is class E from 4000 ft up to 6000 ft and class D above 6000 ft.

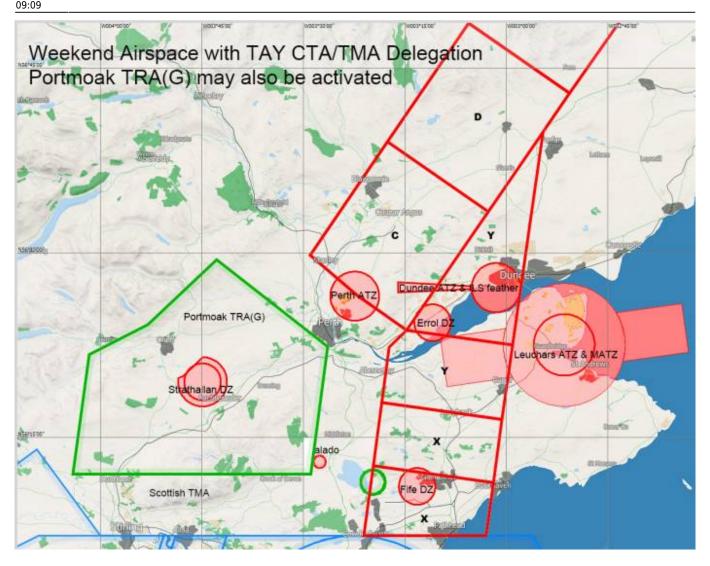
Part of this airspace (together with a section of airway TAY CTA) may be opened to allow gliding at weekends. Refer E. Letters of Agreement.

2.6 Airway TAY CTA sections A-D

This airway runs SW – NE across an area well used for wave cross-country flights. The base is at various levels starting at FL55 in the SW rising to FL105 in the middle before dropping back to FL55 at the NE end. Avoiding the various airway blocks while exploiting wave lift (or avoiding sink!) requires careful route selection.

From Portmoak a good visual reference for the SE edge of **TAY CTA X** is a line joining the southern end of Glenfarg Reservoir with the point at which the Earn flows into the Tay. The area of **TAY CTA A** covering the E end of the Ochils, Gleneagles and Strathallan has a base at FL55. If you proceed on a NW course then a crossing N and E of Dunning has a base of FL85. Further N and E still, a crossing N and E of Scone airfield (not Perth itself – that's still FL85) has a base at FL105. Further N the bases step down again as the airway joins the Aberdeen CTA.

The southernmost sections of **TAY CTA A & B** may be opened to gliders at weekends – refer **E**. Letters of Agreement. The diagram below shows the effect of the activation of the **TAY CTA/TMA** area. It also shows the Portmoak Wave Box (Portmoak TRA(G)) which is activated separately from the **TAY CTA/TMA** area. Please check the status of both areas before taking off.



If you are flying during weekdays then unless you have read, signed and activated the airway crossing procedure stay clear of this airspace under all circumstances.

2.7 Parachute drop zones

Unless you have positive information that any drop zone is inactive you must remain outside a circle of 1.5 nm radius up to FL150 (FL120 for Fife (Glenrothes)) centred on each of the notified parachute sites. If you are within 3 nm of either Strathallan or Errol drop zones, they would appreciate a call on 129.905. You do not need an FRTOL to call on 129.905. If they do not reply, this does not mean that the zone is inactive. Glenrothes ("Fife Radio") channel is 130.455. They will be expecting gliding activity up to the edge of their drop zone however a call on the radio is appreciated by them if you are close.

2.8 Active Airfields

The ATZs at the local airfields are active to 2000ft above each airfield. The zone at Leuchars is 2.5 nm radius, while Perth and Dundee are only 2 nm. Leuchars also has a MATZ.

The Dundee ATZ also has an instrument approach "feather" on its western side extending out almost

to the Perth ATZ. Pilots need to be aware, especially when thermal soaring along the Sidlaw Hills East of Perth, that IFR traffic may be using the instrument approach even in VMC. These instrument flights will not be keeping a good look out; in addition the approach procedure is not confined to the feather (that's just the final bit) so a standard call to Dundee Approach on channel 122.905 letting them know where you are is recommended. Even if you do not wish to call (e.g. too busy aviating to communicate) you should listen on their frequency.

Fife (Glenrothes) airfield no longer has an ATZ however for good airmanship pilots should treat it as having a zone. A convenient visual reference is to remain to the West of the windfarm at the end of their runway.

Balado is operational with microlight and TMG activity, refer the notes above.

For these and indeed any other airfields you are flying close to, a simple call on the radio to let them know who and where you are and what you plan on doing goes down well. Plain English will suffice if you do not have a FRTOL. If you need to land at an airfield (with Perth being a popular spot) please call them. Arriving unannounced at an airfield is not only very poor airmanship but if that airfield has an ATZ, it contravenes air law.

2.9 Airway MORAY CTA

Airway MORAY CTA which runs N from the Scottish TMA is Class E+ (TMZ) airspace (note: TMZ means Transponder Mandatory Zone). The requirements for operating in this airspace are as follows:

2.9.1 Non-Transponder Equipped Gliders

VFR flights not complying with the notified SSR carriage and operation requirements require approval to enter Class E+ TMZ airspace. Such aircraft are required to be either in radio contact with the controlling authority or to operate in accordance with agreed procedures.

VFR flights operating without a functioning Mode S SSR transponder and in radio contact with the appropriate controlling authority may exceptionally, and as precaution to ensure safe integration of participating VFR aircraft in conflict with IFR traffic on the Class E+TMZ airway, not receive immediate approval to enter Class E+TMZ airspace. Should this occur, affected pilots will be informed of the reason(s) why. Approval to enter the Class E+ will follow as soon as possible thereafter.

2.9.2 Transponder Equipped Gliders

VFR aircraft within Class E+TMZ airways shall carry and operate a Mode S Secondary Surveillance Radar (SSR) transponder. VFR flights do not require ATC clearance and, subject to complying with the notified TMZ requirements, do not require two-way communications. However in the interest of flight safety, at a minimum, it is advisable to maintain a listening watch on the appropriate channel.

2.9.3 Summary

To summarise, as long as there are no exceptional circumstances ATC will not deny us access to fly

within Class E+ TMZ airspace even if we do not have a working transponder in the glider.

Refer f._moray_cta_radio_procedures on how to make the appropriate radio calls to access MORAY CTA when not transponder equipped.

Furthermore, on occasions, the base of the MORAY CTA airway is temporarily lowered at its southern end where it joins the TMA. The airway is not displayed on the CAA 1:500,000 chart South of the ERSON reporting point as its base is at FL195. When these occasional changes are notified by NOTAM, the base(s) in the southern section can be temporarily lowered by a significant amount – down to FL55 or 5500 feet in parts.

2.10 VFR flight above FL100

GA aircraft and gliders operating VFR above FL100 are required to have and operate a transponder (Mode C or S). In Scotland the SGA has negotiated an exemption from this requirement for gliders only to enable wave flying above FL100 in Class G airspace, ref. CAA Official Record Series 4 No. 1483, valid until 20 January 2022. This exemption has, to date, been renewed as required. The exemption is activated on a day-by-day basis via a NOTAM initiated by nominated individuals in the various Scottish clubs – to date this has been a relatively routine exercise. Unless this NOTAM is issued and activated, gliders should not climb above FL100 unless operating a transponder in mode C or S.

2.11 Airway P18

At the far eastern end of Strathmore, airway P18 makes landfall between Stonehaven and Montrose just prior to joining the Aberdeen CTA. Pilots using the Fordoun turnpoint, typically during NW wave flights, should take care due to its proximity to P18 and the CTA.

2.12 Special Agreements (LoAs)

The four key Letters of Agreement (LoAs) for Portmoak are:

- 1. TAY CTA Gliding Area (the area in the Scottish TMA and TAY CTA airway)
- 2. LoA TRA(G) including the Portmoak Area (the wave box on top of the TAY CTA Gliding Area) and the Scottish wave boxes
- 3. TAY CTA Airway Crossing procedures
- 4. Crossing Edinburgh Class D airspace

The various LoAs are found on the BGA website; hard copies should be in the clubroom. A summary is attached in E. Letters of Agreement – this is an overview and not a substitute for reading the individual LoAs.

3. Summary

Our airspace is relatively unrestricted, but fairly complex. Making sure that all pilots understand and observe the rules is essential if we are to at least maintain our present level of freedom.

SANT CERVANTES & JOHN WILLIAMS 2022

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