

ANNUAL AIRSPACE UPDATE

What you should know

Carr Withall, Chairman of the BGA Airspace Committee, provides a brief assessment of 2007 and the annual reminder of airspace knowledge that all pilots should have

THE past year, 2007, did not see the introduction of any new Class D airspace. However, many meetings were held at Doncaster, now Robin Hood Airport, to obtain useful Letters of Agreement during their proposal for Class D airspace. They may be granted Class D airspace later this year. Other airports are also planning to apply for Class D airspace, and Glasgow is wishing to change the area of Class E airspace close to them to D. This would be bad news for all General Aviation (GA), and airspace committee member Bruce Cooper has been in discussions with Glasgow.

During the summer there have been three workshops with the Civil Aviation Authority to discuss the transponder issue both with the BGA and other GA organisations.

The airspace agreements with Bristol and Cardiff have with one exception worked well, which demonstrates that with goodwill on both sides a flexible use of airspace is achievable.

As part of the CAA's Airspace and Safety Initiative, National Air Traffic Services (NATS) and GA have been having Partnership meetings where topics dear to our hearts – such as access to controlled airspace, AIS, and giving a greater understanding to controllers of GA issues and capabilities – are discussed. I attend for the BGA.

There has been an increase in controlled airspace at medium level between Birmingham and Southampton, which includes an airway to the west of Lasham (R41 extension) that is ONLY in use between the hours of 17.30 and 09.30. The base is FL65 and will be shown on the new half-million map, due to be published on April, 10 2008.

Aeronautical Information Service

The AIS website is www.ais.org.uk. Please pay particular attention to information on the Red Arrows' displays, which is now available without the need to log in. Go to the web links at the bottom of the page and scroll down to the Red Arrows. Make sure you know when and where they are displaying. Vacate the display airspace in plenty of time. The Red Arrows website will be giving the routes that they will be flying between shows on the same day.

On the front page of the AIS website you will see on the left in red the link to the on-track website, www.flyontrack.co.uk. This

is an excellent website listing the latest airspace changes and restrictions together with maps of the restricted areas.

AIS has had some engagement with developers of graphical NOTAM plotters to try to improve the quality of the information that they have access to.

Transponders

The CAA has agreed that the date for all aeroplanes below 5,700kg to be equipped with Mode S transponders is March 2009. However, aircraft without a transponder or with the older type Mode A/C have an exemption until March 2012 to comply with the regulation.

A low-power Mode S transponder that is more suitable for gliders is still being developed. Until all ground radars are Mode S (2012) the problem with power consumption will still exist.

The CAA has published its new proposals for interoperability and these are available through the BGA website (*see also pp26-29 of this issue*). Its current thinking is that all aircraft flying within controlled airspace must be equipped with Mode S transponders. Current Letters of Agreement or arrangements with ATC authorities would continue for access without transponders. However, the CAA is also planning that ALL aircraft, including gliders, must be equipped with transponders when flying above FL100. They are suggesting that subject to certain criteria and levels of military/civil traffic there may be areas where gliders could operate above FL100 without a transponder. There are 1,800 gliders based either at or near wave sites around the UK.

By the time you read this, the BGA will have issued its position on this new RIA.

ICAO Airspace Classification

In 1991 the UK adopted the system of international airspace classification developed by the International Civil Airspace Organisation. The status of a piece of airspace is denoted by a letter shown on all aeronautical charts, and it is this letter rather than the title of the airspace that determines the rules applying to it. For example, in the UK airways will all be Class A but in other countries they may be Class E. In order to fly within Controlled Airspace, gliders will often require legal exemptions, and the availability and nature of these will vary from country to country.

Class A Controlled Airspace

Cotswold CTA
Daventry CTA
London CTR
London TMA
Manchester TMA
Worthing CTA

All Airways (except where they pass through a TMA, CTA or CTR of lower status)

As from November 1997 NO airways can be crossed by gliders. Exceptionally, gliders may cross sections of Class A airspace by virtue of a Letter of Agreement (LoA), which will have very detailed procedures to be followed. These letters are specific to a club operation. Camphill has an agreement for crossing airway B1. There is also an agreement for crossing airways B2 and B226 in Scotland, which applies nationally. However, both these agreements require pilots to have read the detailed procedures and signed the BGA form, which MUST be given to the CFI before undertaking a crossing flight.

Class B airspace

This no longer exists.

Class C Controlled Airspace

The entire airspace over the UK above FL195 is Class C controlled airspace. Gliders are no longer allowed to fly above FL195 without restriction. Specified areas have been agreed that can be activated by clubs using the procedures for glider operations in TRA(G). The BGA website's airspace section has full details of these procedures – see www.glidering.co.uk/bgainfo/airspace/loas.htm – and links to the AIP website, where the maps of these areas can be seen.

Class D Controlled Airspace

Formerly Special Rules Airspace. All Class D airspace requires an ATC clearance to enter and transit this airspace. Pilots will also be flying in VMC conditions. Any pilot wishing to enter it must:

1. Contact the ATC unit and pass details of aircraft's position, level and proposed track.
2. Obtain entry clearance.
3. Listen out on the frequency whilst in that airspace.
4. Comply with ATC instructions.

The above rules apply to gliders in all Class D Areas:

Aberdeen CTR/CTA
Belfast CTR
Belfast City CTR/CTA
Birmingham CTR/CTA
Bournemouth CTR
Bristol CTR/CTA
Brize Norton CTR
Cardiff CTR/CTA
East Midlands CTR/CTA
Edinburgh CTR
Glasgow CTR
Leeds/Bradford CTR/CTA
Liverpool CTR
Lyneham CTR/CTA
London Gatwick CTR/CTA
London Stansted CTR/CTA
London City CTR

London Luton CTR/CTA
 Manchester CTR/CTA
 Newcastle CTR/CTA
 Scottish TMA
 Solent CTA
 Southampton CTR/CTA
 Teesside CTR/CTA

There is a form to complete after flying through Class D airspace (see the BGA website airspace section). All clubs should have copies. Completing this form will give the BGA and the CAA statistics on how many gliders have been granted clearances to continue their flights and identify any ATC units that may be unhelpful. There is NO restriction to asking any ATC unit in Class D for clearance to fly through their area. Most are only 'busy' for short periods usually early morning and late afternoon. Much of the traffic is transiting light aircraft or flying school traffic. *The Code of Conduct for Glider Flights Through Class D Airspace* is still relevant as it sets out good airmanship practice. Most pilots who have asked for clearances obtain them from helpful controllers but a few have been refused.

Code of Conduct for Glider Flights Through Class D Airspace

With the ever-increasing size of Class D areas the need to fly through them on cross-country flights will occur more frequently. Pilots can ask for a clearance to fly through ANY Class D airspace. The Code of Conduct set out below is a guide to good airmanship practice.

1. Glider pilots should plan to route their flights through Class D airspace when it is clear that there are advantages from so doing, such as better weather and shorter track distance.
2. Flights should try to spend the minimum time in Class D airspace. Pilots should avoid circling on or close to runway extended centre lines, since this may well interfere with departing or arriving traffic.
3. Keep the controller informed if, for any reason, ie massive sink, you have to change your planned course.
4. Good lookout is vital at all times, and glider pilots should be prepared to initiate avoiding action notwithstanding their right of way priority. Gliders are not always visible on radar.
5. Competition tasks should NOT be set through Class D airspace. Where a task leg has to be set close to Class D airspace the ATC unit should be informed. When possible control point(s) should be established, to help ensure that gliders remain outside the airspace.

An example of R/T procedure for crossing or flying in Class D Airspace is on the BGA website's airspace section (introduction).

Class E Airspace

The Belfast TMA and parts of the Scottish TMA are notified as Class E and permits all aircraft (including gliders) to fly in this area without ATC clearance subject to maintaining VMC.

Class F Airspace

An Advisory Route (ADR) is a route used by airline type traffic without the full protection of an airway. Although depicted only as a centreline on UK aeronautical charts it is nominally 10nm wide. Gliders may cross Class F airspace without restriction but caution should be exercised and a listening watch on the correct ATC frequency is advised.

Class G Airspace

This is the term given to the "open" FIR (Flight Information Region), which is the uncontrolled airspace not subject to any of the previous classifications. Within Class G airspace there are various non-ICAO types of airspace, which are described below.

Within Classes F and G airspace aircraft are separated on a purely see-and-be-seen concept. If requested, a flight information service (FIS) may be provided by civil and military ATC units. Most small light aircraft talk to whoever will listen as they fly around the country.

Visual Meteorological Conditions

VMC conditions for Class D, E and in the open FIR below FL100 are: that an aircraft shall remain 1,000ft vertically, and 1,500m horizontally from cloud in a flight visibility of 5km. Below 3,000ft AMSL an aircraft shall remain clear of cloud in a flight visibility of 5km and in sight of the ground. Additionally when flying in the Open FIR below 3,000ft and below 140kts flight is permitted in flight visibilities of 1,500 metres.

Local Agreements

A number of local agreements exist which modify the effects of some of the airspace listed above. Letters of Agreement between a gliding club and a nearby airport can make airspace either more or less restrictive than described above, depending on circumstances. These arrangements are too numerous to list in full.

Clubs that have Letters of Agreement must encourage their pilots to make use of the agreements. These agreements take up a large amount of time and effort to achieve and if the ATC authorities can see that they are not being used then we shall lose them. Use it or lose it!

Copies of Letters of Agreement should be available from your club.

NOTE: Letters of Agreement are now published on the BGA website airspace section to assist pilots before they visit a new site that has an LoA. Sites with LoAs will be listed. These agreements have developed over considerable time and are NOT for discussion.

Aerodrome Traffic Zone (ATZ)

A glider pilot wishing to enter an ATZ must first call the airfield on the notified radio frequency. An ATZ is only active during the notified hours of operation of the airfield. A few ATZs may be only active at weekends and Bank Holidays. Many military airfields

are notified as permanently active though in reality this is not the case. Nonetheless the ATZs must be regarded as active at all times.

At an airfield with an Air Traffic Control (ATC) unit, that unit is able to give or refuse permission for any aircraft to enter the ATZ and to give clearances to take off or land.

At an airfield with an Aerodrome Flight Information Service (AFIS) or Air/Ground (A/G) service, that unit is able only to pass information from which a pilot may judge whether or not it is safe to enter the ATZ or to take off or land; in other words, the unit cannot issue clearances or withhold permission.

The following categories of airfield are protected by an ATZ: Government aerodromes and licensed aerodromes with one of the above types of service.

The ATZ comprises the airspace extending from ground level to 2,000ft above the level of the aerodrome and within a radius of 2 or 2.5nm of the centre of the aerodrome, depending on the length of the main runway.

At airfields without ATZs, including most gliding sites, regardless of how busy they are, an itinerant aircraft may legally penetrate the airspace near and over the airfield, provided the pilot conforms to the traffic pattern or keeps clear of the circuit airspace, and observes the normal rules of good airmanship to avoid conflicting with other aircraft.

For landing at airfields with or without ATZs, it should be noted that many are listed in the UK Air Pilot as "PPR", "PPR to non-radio aircraft" or even "not available to non-radio aircraft". PPR (Prior Permission Required) means that landing permission must be obtained in advance of the flight, e.g. by telephone. All military airfields are effectively PPR and will not permit landings by civil aircraft except where they have been prearranged, or in an emergency.

Military Aerodrome Traffic Zones

The rules applicable to the penetration of a MATZ are not mandatory for civil aircraft and the same applies to the Lakenheath Military Control Zone. However, radio contact is advised and inside every MATZ there is an ATZ, the rules of which must be observed.

A standard MATZ comprises the airspace within a 5nm radius of the centre of the airfield extending from the surface to 3,000ft above airfield elevation.

In addition, projecting stubs 5nm long and 4nm wide extending from 1,000ft to 3000ft above airfield elevation are aligned with the approach to the main runway at one or both ends. Some MATZ may lack stubs or form part of a combined MATZ (CMATZ).

Prohibited and Restricted Areas

A Prohibited Area (P-prefix) is prohibited to all aircraft, whereas a Restricted Area (R-prefix) permits limited access by aircraft under defined circumstances, for example, landing at a nearby airfield. These areas include atomic energy establishments,

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- security areas in Northern Ireland and sensitive military installations. Most Restricted Areas should be considered as prohibited to gliders but the following are exceptions:

The Restricted Airspace established around high security prisons is applicable only to helicopters and R105 at Highgrove House, Gloucestershire, applies only to helicopters and microlights.

R313 at Scampton exists for the purpose of protecting the Red Arrows display training. The area is a circle of 5nm radius extending to 9,500ft amsl and active only during Scampton's normal operating hours, which are weekdays and as notified by NOTAM. During these times, a glider may enter the area by permission of ATC Waddington.

Restricted Airspace (Temporary)

Major air displays such as Farnborough or the Royal International Air Tattoo (RIAT) display at Fairford are protected by Restricted Airspace (Temporary), or RA(T) – formerly known as Temporary Restricted Airspace.

This year the RIAT is again at RAF Fairford, from July 12-13, 2008. Be aware that Friday, July 11 and Monday, July 14 – when the aircraft arrive and depart – are almost as busy as the show.

Farnborough Air Show is from July 14 to 20, 2008.

Local gliding clubs usually negotiate limited access routes to and from their sites to enable non-radio gliders to continue operating but a glider equipped with suitable radio may fly in the area if it contacts the ATC unit designated by the NOTAM as the controlling authority.

Other types of RA(T) are effectively closed to gliders. They are established to protect Red Arrows displays throughout the country, plus major flypast formations, over events of political significance and over the sites of major disasters. The duration and extent of the restriction can be quite short and will be published by NOTAM.

Royal Flights

At certain times airspace to protect Royal Flights in fixed-wing aircraft is established. This airspace is now referred to as Temporary Class A airspace.

Details are available by using the Freephone service 0500 354802. NOTAM information of this airspace may be available should the flight be planned in advance. The AIS website (www.ais.org.uk) will have this information. NOTAMs covering Royal helicopter flights have ceased. These flights are not protected by Temporary Class A airspace.

Clubs should telephone daily in order to obtain information on Royal Flights. Gliders are not permitted to fly within Temporary Class A Airspace, even by contacting ATC.

Danger Areas

The UK is covered with Danger Areas of

many types, shapes and sizes. They are active part-time, permanently or when notified by NOTAM. Full details will be found in the UK Air Pilot, RAC Section. The chart of UK Airspace Restrictions is also useful.

The UK Air Pilot lists only the type of activity most likely to be encountered, but in practice various hazards may be encountered while manoeuvring outside the confines of the Danger Area, especially if it is a Weapons Range Danger Area.

Many Danger Areas contain areas over which flight is prohibited at times within the period of activity of the Danger Area by reason of byelaws made under the Military Lands Act 1892 and associated legislation. It is also worth noting that the UK Air Pilot does not list Danger Areas with upper limits 500ft or less above the local surface, to which prohibiting byelaws may also apply.

With these exceptions, flight through a Danger Area is not prohibited, but may be foolhardy.

For certain Danger Areas, most notably for Salisbury Plain, a Danger Area Crossing Service is available – call Salisbury Plain Control on 122.75Mhz. A Danger Area Activity Service is available in other cases: this should be viewed as a means of establishing the state of activity of a Danger Area at a particular time, not as a clearance to cross it.

A convenient summary of these two services and the ATC units to contact is printed at the foot of the 1:500 000 series CAA charts.

Particular care should be taken to avoid Weston on the Green (D129), which is used extensively for military paratroops training. Brize Radar on (134.3) will confirm activity status.

Parachuting

There are many sites around the country and a few operate every day and are extremely busy. The list of parachute sites and the appropriate contact ATSU/AC for transit information is on the maps. The airspace is contained in a circle radius 1.5 or 2nm from the centre of the drop zone up to a maximum of FL150.

You will NOT see a free-fall parachutist in time to take avoiding action.

The BGA website's airspace section has a link showing all parachute sites and radio frequencies.

NOTE: This list adds another 0.5nm to the radius of drop zones. This is for those pilots flying with moving map displays to receive a warning when within 0.5nm of a drop zone.

High Intensity Radio Transmission Areas

These contain powerful radio emissions, which may cause interference with glider radios, electric variometers, electronic barographs and loggers. In particular, Fylingdales is so powerful that prolonged exposure may be injurious to health.

Areas of Intense Aerial Activity

An AIAA is airspace that is not otherwise protected by regulated airspace but where the activity of civil and/or military flying is exceptionally high or within which aircraft regularly participate in unusual manoeuvres.

Gliders may penetrate these areas but in view of the hazards, a sharp lookout is essential.

Military Low Flying System

Low flying by high performance military aircraft takes place in most parts of the UK up to 2,000ft agl, with the greatest concentration between 250ft and 500ft. A chart is available denoting the system (*UK Air Pilot, RAC Section*). Most gliding sites are notified to the Ministry of Defence, which affords them the status of a Military Avoidance Zone, usually with a radius of 1.5nm.

Radar Advisory Service Area

A RASA is an area of airspace in which a pilot may, if he/she so chooses, avail him/herself of the services of a radar unit. There is no requirement to do so, and a glider pilot should not assume that other aircraft are being separated from him, nor even that the radar unit is aware of the glider's presence.

The Airprox System

Hugh Woodsend is now an official on the Airprox Board and thus can advise if any gliders are involved. An airprox may be filed by a pilot who considers his flight to have been endangered by the proximity of another aircraft. All airprox incidents are investigated by the United Kingdom Airprox Board, whose deliberations are confidential so as to preserve anonymity. The purpose of a UKAB investigation is to determine what lessons can be learnt, not to take punitive action.

Prompt airprox reporting is vital if the other aircraft is to be traced. If in radio contact with an ATC unit report to them at once, or if this is not possible, telephone soon after landing. Call AIS (MIL) at Swanwick 01489 612406, who will start tracing action at once and inform the Airprox Board. Follow this up with a written report on form CA1094 to the UKAB within seven days. Always use GMT (UTC is the same) in reports. Every club has been issued with this form.

UKAB can be contacted in working hours on 01895 815125 or fax on 01895 815124. Their address is: The Director, UKAB, Hillingdon House, Uxbridge, Middlesex, UB10 0RU.

If filing or suspect an Airprox may be filed against you, then please also contact:

Bruce Cooper 01628 521360 or

bruce.cooper68@virgin.net or

Carr Withall 01442 862577 or

Carrwithall@btinternet.com or

Hugh Woodsend 01993 830588 or

Hugh_woodsend@compuserve.com

as soon as possible. If you are carrying a

logger please keep the trace. The use of traces may well provide evidence against exaggerated claims.

Use of Radio

A glider pilot possessing a radio operator's licence (R/T Licence) is entitled to use all the available aeronautical frequencies of a 760-channel radio.

This permits seeking access to the following types of airspace that may be otherwise closed to gliders: any Class D airspace and Aerodrome Traffic Zones; some types of permanent and temporary restricted airspace; and some Danger Areas.

Radio cannot be used to request entry clearance into Class A airspace (except by special arrangement).

All clubs have a copy of where and with whom one can take the R/T licence test. The licence will be valid for ten years.

Future concerns

With the ever-increasing amount of CAT (commercial air transport) traffic there is no doubt that smaller airports will be requesting controlled airspace.

This will require a huge amount of work by the BGA airspace committee, mostly done by Bruce Cooper and myself. Unless more pilots join this committee to assist us the Civil Aviation Authority and National Air Traffic Services will win the battle to gain more and more controlled airspace and we shall have less airspace in which to enjoy our sport.

Maps

After more powered aircraft and helicopters have been reported flying over gliding sites when winch launching is taking place the wording 'Intensive Gliding Activity' has been put back on the aviation maps for sites that have been most affected.

There is much useful information at the bottom and side of the map that can greatly assist on cross-country flights: for example, ATZ frequencies, parachute site contact frequencies, Danger Area activity etc. With ever-increasing numbers of gliders and light aircraft flying around it is essential to use every bit of airspace possible. This can only be achieved if the correct frequency is immediately to hand when you wish to inform airfields that you are likely to fly over or through their zone. See BGA website – Airspace – Charts, for dates of new maps.

Airspace Infringements

Airspace infringements are of course totally unacceptable.

Last year several pilots were penalised in BGA competitions for very minor airspace infringements, primarily due to their not having the correct airspace shown on their map display. Please ensure that you have the up-to-date GPS airspace data downloaded and installed. Also have the latest map with you in the cockpit.

If due to the difficulty of trying to stay airborne you could drift into controlled airspace, then before getting close to the airspace PLEASE call the ATC unit,

apologise, give your reason for the required intrusion. They DO NOT CARE if you do not have an R/T licence but they DO CARE if the airspace that is in their control is infringed. With the requirement to obtain an R/T licence to fly within Class D airspace, pilots should become more confident to talk to other airfields that they may be flying close by. A brief courtesy call is welcomed by most controllers and will reinforce the position that we are "professional" pilots.

Finally, if you're lost...

Remember if you are truly lost and worried about infringing controlled airspace call on the distress frequency 121.5. This service can very quickly find an aircraft as long as it is at about 2-3,000ft and south of Manchester.

References: The information in this article is only a brief synopsis of the airspace rules as they affect glider pilots and is believed to be accurate at the time of writing. In case of doubt authoritative references should be consulted. These are: *Air Navigation Order 2005* (now amended January 2008). *Rules of the Air Regulations 2007*. *BGA Laws and Rules*, 15th edition, March 2007, reflects the current legislation.

Abbreviations: CTA= Control Area, CTR= Control Zone, TMA= Terminal Manoeuvring Area (the lower limit of a CTA or TMA is an altitude or flight level above the surface, whereas a CTR extends to ground level).