

Soaring Gliders – The ATC Point of View

In general terms, when providing a service to aircraft, whether it's a control service or one from the suite of Flight Information Services, a controller needs to be able to plan ahead. The degree to which that needs to happen is determined very much on the complexity of the airspace and the type of traffic operating in that airspace and what that aircraft or group of aircraft wants to do. In the case of gliders this is not always as predictable as we might like it to be!

In order to provide a service or access to controlled airspace, if that is what the glider pilot wants, a controller needs a certain amount of information from aircraft under his/her 'control' in order to formulate a mental plan that will, hopefully allow all of the parties to do what they want to and not result in a loss of separation or any unexpected surprises for anybody involved. That information that is ideally required to form that mental plan can be broken down into a number of key headings and will depend on whether it is passed by radio or organised on the ground in advance. Clearly the airborne call is the most commonly used by ATC, if not necessarily by glider pilots. In the event of a radio call this can be broken down as:

Callsign, aircraft type, departure point, destination, position, level and intentions.

The requirement for some of these pieces of information (e.g. callsign) is obvious, others, less so, therefore, I will try to outline the rationale for each piece.

- Callsign – Probably the most obvious, we need to know who we are talking to.
- Aircraft Type – From this we can get an idea of the aircraft's performance and manoeuvrability. This gives us an indication of how far to plan ahead of that aircraft as a Cessna Citation will cover ground much more quickly than a Piper Cherokee or a high performance glider.
- Departure point and Destination or current position and next turning point – This gives us an approximate idea of how the aircraft's flight will affect the airspace for which we are responsible. Is the aircraft's routeing likely to take it east or west of the airfield (or even north or south)? From this we can also assess if coordination needs to be effected with adjacent units or it will affect arrivals or departures or both.
- Position, altitude or level band and future intentions – This refines and reinforces the information provided by the departure point and destination. It also acts as a filter so that traffic information passed to all aircraft can be more relevant. In the glider case it is acknowledged that this might be quite generic.

There are a number of objectives of Air Traffic services, in this context, the relevant ones are to prevent collisions between aircraft, to expedite and maintain an orderly

flow of traffic and to provide advice and information useful for the safe and efficient conduct of flights – to all pilots. The best possible information concerning the position, level and intentions of an aircraft is essential in allowing the controller to fulfil those objectives and deliver the, frequently changing, mental plan.

Most controllers, while not necessarily being pilots themselves, have a reasonable understanding of the effect weather can have on aircraft performance as it forms part of their training. We appreciate that under certain conditions, pilots of aircraft, particularly gliders, may not be able to give as accurate an indication of their intentions as we would wish or a change of circumstances prevents previously declared intentions from being carried out. Under these circumstances, it is important that as much relevant information is provided to the controller as soon as possible so that the best level of service can be provided to all the airspace users and not just one user community.

If gliders are operating close to a busy airfield in class G airspace or close to the boundaries of class D airspace, particularly during an organised event or competition, then it would be really helpful if the organisers would engage with the relevant ATSU to discuss likely routings or operating areas sometime before the event starts or the task is launched. This would give the unit the opportunity to develop mitigations for any issues which may be identified so that all users of the airspace have the chance to get the best out of a given situation – in many cases this is a safe compromise!

Out with any organised event it would still be worthwhile contacting the airfield concerned and arranging a visit of a small group of pilots to that control tower to “see how the other half lives” as no group of individuals exists in isolation. This applies equally to pilots of every discipline (rotary/fixed wing/glider/GA/commercial etc) as it does to ATCOs. The best level of service can only be achieved when all parties involved act together in cooperation and this can be best achieved by having as complete as possible an understanding of each other’s needs and limitations. Why not offer to get your local ATCO’s airborne to see it from the glider cockpit perspective – with only FLARM and possibly no radio – that should get them looking out of the cockpit!

Finally, the usual reason an ATSU exists at an airfield is that the level of traffic using that airfield is sufficiently dense and/or complex as to justify a higher level of service to ensure the safety of aircraft arriving, departing and transiting through the airspace around that airfield. While the ATSU must make every effort to allow access to a given piece of airspace, ultimately it may not be possible, in the context of class D airspace, for an aircraft which cannot be identified on radar and may not be radio equipped, cannot comply with ATC instructions or follow a prescribed routing through that airspace, to be allowed access under a particular set of circumstances. But this should not mean it cannot happen ever!

However, what may be possible depending on the desired general routing and the prevailing traffic situation is to give a block clearance that does provide the opportunity to route through a particular volume of airspace – “not further south than....” (a prominent line feature), or “not lower than x thousand feet” or “not above x thousand feet (although it is acknowledged this might not work too well unless it was a relatively high altitude!). While it is recognised that this may not give all of the flexibility that the glider pilot might ideally want or need, in some cases it may allow cutting a corner of a CTR that could enable the glider pilot’s task to be achieved. But this does require a radio call to make it happen.

The challenge for the ATCO, if they are likely to have any traffic that might be affected by this routing/clearance is they need to be able to retain track identity of a primary radar ‘blip’ that may only be painting intermittently on the radar display, or segregate the ‘chunk of airspace’ for the particular gliding task. Consequently, if there is a potential that this might be the situation or there are large numbers of gliders operating in a small area then this becomes very difficult indeed.

Even in the case where a controller may have given a ‘block’ clearance to use a volume of airspace he/she still needs to know when that airspace is no longer occupied or in use. This requires a confirmatory call by the glider pilot to notify they have moved on.

So, in sum, gliders are generally not perceived as an ATCO’s best friend – they don’t paint very well on radar; their ability to manoeuvre is limited in terms of the ability to integrate with other traffic (in the normal terms of heading or height) and by nature of their (relatively) slow speed they hang around for a while and in many cases the glider pilot does not want to communicate more than the absolute minimum necessary. Under these circumstances it is relatively easy to see why, under some situations, the easiest thing is to say ‘no’. However, if a request is reasonably made (both in terms of time and location of access) under many circumstances, the request to access controlled airspace should result in the answer ‘yes’. However, if nobody tries then it will remain a block of airspace that is not available to glider pilots – that is never the way it was planned or intended to be operated.