

Competition Airspace Files – tips on using the new version of ASSelect

Background:

Competition organisations typically generate a competition-specific airspace file for use in SeeYou task setting and Soaring Spot scoring, and also publish the file for use by competitors. It is important that such competition-specific files include all sensitive airspace, including any temporary restricted airspace such as RA(T)s, so that tasking can take into consideration such sensitive airspace, scoring appropriately identifies and penalises airspace infringements, and competitors using the file inflight can be shown all sensitive airspace on moving maps and given airspace proximity warnings.

It is a straightforward process to generate a baseline airspace file using ASSelect – especially with the new ASSelect web application developed by Alan Sparrow - and most competition organisations have the skill and experience to add temporary restricted airspace to the baseline file. This document is intended to give guidance for those generating airspace files – especially competition organisations – and offer some direct support to less experienced competition organisations.

Objective:

To give guidance and support to competition organisations in generating competition specific airspace files, for use in SeeYou/SoaringSpot scoring (and task setting), and for onward publication to competitors.

Separately, the Competitions Committee would like to publish guidance on recommended airspace moving map display settings and airspace proximity warning settings for SeeYou, SeeYou Mobile and LXNAV products so that competition organisations, competitors and other pilots have all airspace displayed and warned about appropriately (and so help reduce inadvertent airspace infringements). It would be appreciated if anyone wishes to volunteer to do the same for other systems and software.

Process for creating competition airspace file:

This process is based on using the long-established ASSelect software originally created by Geoff Brown, then maintained and supported through the volunteer efforts of George Knight, and recently converted into a web application by Alan Sparrow.

1. Determine any ASSelect option variations from default and run latest published version of ASSelect at <https://asselect.uk/> (noting version/date) to create baseline airspace file.
2. Define any temporary competition-specific airspace & penalty zones (see C below).
3. Add temporary competition-specific airspace to baseline airspace file.

A. ASSelect Options

ASSelect has a number of user options. The recommended ASSelect options are:

1. Main:

No-ATZ Airfields	Class G
Gliding Airfields	Class G (but exclude competition host club)
Microlight Airfields	Exclude
Obstacle For	Include. (The NATS obstacle database has around 7,300 obstacles. For practicality reasons, ASSelect filters out the bulk of these, excluding obstacles approximately less than 600'agl, all wind turbines/farms, and obstacles offshore or in London or Manchester. Obstacle NOTAMs that would be excluded by these ASSelect filters can be excluded from the competition airspace file. The competition airspace file includes the ~57 ASSelect filtered obstacles as Danger Areas with a ½ mile radius up to the height of the obstacle.)
HIRTA/GVS	Exclude
ATZ	Class D
ILS Feathers	Class D
Format	OpenAir

2. Extra:

Wave Boxes	Default: Clear all. Set as appropriate.
LOAs	Default: Clear all, except Nuclear Exemptions (Aldermaston & Burghfield Restricted Areas) so allowing use of these Restricted Areas outside of the boundary fences, noting this requires Competition Organiser to meet conditions of the CAA letter, including notification to the Nuclear Installation representatives. Include LOAs as deemed appropriate, e.g. Compton Box, Daventry Box, Bath Gap, and exclude the Nuclear Exemptions if the Competition Organiser will not meet the conditions of the CAA letter.
RA(T)s	Note the Cambridge RAZ is permanently enabled. Default: Set (select all). Clear as appropriate.

3. Options:

Max. Level	Default: FL105. Set higher/unrestricted if potential wave conditions.
Omit North of:	Default: None. Set as sensible.
Omit South of:	Default: None. Set as sensible.

B. Temporary Competition-Specific Airspace & Penalty Zones

Temporary competition-specific airspace will normally be based on RA(T)s and NOTAMs. Given that officially published NOTAMs are normally fluid until immediately before a competition, there may need to be some revisions to the competition airspace file, although the competition organisation can advise any late changes or specific issues at daily briefing (noted on the task sheet as appropriate) and ensure avoidance tasking. RA(T)s are usually published well in advance on the effective dates and should be included in the temporary competition-specific airspace unless well clear of the potential tasking area.

The competition organisation will normally define penalty zones in the Local Rules (with possible changes briefed on a daily basis). Penalty zones will typically include the most active parachuting sites such as Langar, Sibson, Weston-on-the-Green and Chatteris, and possibly some less active parachuting sites, e.g. Redlands, plus Danger Areas that are active at some time during the competition. Most penalty zones will already have the zone defined in the baseline airspace file, e.g. the most active parachuting zones, but any

penalty zones that are not contained in the baseline airspace file should be added to the temporary competition-specific airspace file.

For temporary airspace or penalty zones that do not apply throughout the competition period, it is recommended to include them in the competition airspace file and then to notify active/inactive or applicable/inapplicable at daily briefing and on the task sheet. It is recommended not to produce different versions of airspace files to avoid pilots making errors in selecting or using different airspace files.

Using the OpenAir format with a text editor, a temporary airspace and penalty zone airspace file can be defined as GPS coordinates with altitudes and given an appropriate airspace classification.


The full specification for OpenAir can be found at www.winpilot.com/UsersGuide/UserAirspace and two typical examples are given below.

A typical example of a circular zone is:

AC P	Airspace Classification P=Prohibited
AN AIR DISPLAY at Old Warden 02/08/15	Airspace Name/Description
AL SFC	Airspace Lower altitude/height limit
AH UNL	Airspace upper altitude/height limit
V X=52:05:12 N 000:19:07 W	Lat/Long of centre of circular zone
DC 03.00	Circular zone radius in nm

An example of a more complex zone is:

AC A	Airspace Classification A=Class A
AN RA(T) Silverstone 14-16/07/17	Airspace Name/Description
AL SFC	Airspace Lower altitude/height limit
AH FL25	Airspace upper altitude/height limit
DP 52:03:23 N 000:53:57 W	Lat/Long of zone nodes (first & last same)
DP 52:04:57 N 000:53:57 W	
DP 52:08:15 N 000:59:40 W	
DP 52:06:23 N 001:05:20 W	
DP 52:04:22 N 001:05:00 W	
V D=+	Zone arc (+ means convex, - means concave)
V X=52:02:27 N 001:05:44 W	Centre of zone arc
DB 52:04:22 N 001:05:00 W, 52:00:55 N 001:03:39 W	Lat/Long of zone arc start & end nodes
DP 52:00:55 N 001:03:39 W	
DP 51:59:58 N 001:02:39 W	
DP 52:03:23 N 000:53:57 W	



(Alternatively, some experienced users create additional airspace files in the .SUA format as this is very similar to the format used in the AIC for RA(T)s and NOTAMs, and then run a program to convert them to OpenAir files.)

It is important to verify any additional airspace files by test-loading them into SeeYou and viewing in map mode.

Once any temporary competition-specific airspace file has been validated, it should be combined with the baseline file using a text editor or SeeYou to generate a single file for the competition (as some navigation systems do not allow use of multiple airspace files). Competition airspace files loaded on Soaring Spot are automatically converted to the various standard formats used by navigation systems.

Ultimately Alan Sparrow may add functionality to the ASselect web application to allow users to add temporary and penalty zone airspace to a baseline airspace file and output a single file.