

A pilot made three accidental airspace infringements during one flight that did not result in an incident:

- climbed approx 900 ft into Class A airspace over a period of a few minutes
- climbed approx 300 ft into Class A airspace over a period of a few minutes
- flew for a few seconds just inside Class A airspace

The glider was fitted with a moving map computer with an on-board GPS and a separate moving map mobile device running soaring/moving map software driven by the same GPS data. Both had the latest airspace and navigation files loaded. Airspace infringement alarms were set on both units. An up-to-date airspace chart was also carried. Both navigation units were set up to switch automatically to 'thermal assist' mode.

The pilot failed to be alerted to the first two infringement events as the glider drifted while soaring. The software alerted the pilot to the third infringement event and he took immediate evasive action.

It is a fact that the navigation kit we have available to us helps to minimise the risk of infringements (80% of UK airspace infringements involved aircraft without a functioning GPS moving map). However, the kit needs to be set up correctly, eg:

- Ensure airspace warnings are not inadvertently disabled, both before and during flight.
- Check all settings on moving map devices including pressure setting.
- To avoid in-flight warning overload, minimise the various audible warnings to those necessary (eg airspace proximity and collision avoidance).
- Review the trigger thresholds for airspace alarms.
- Maximise loudness settings for the required audible alarms.

Airspace is a complex, three-dimensional structure. Tracks that take us close to controlled airspace need careful 'what if?' thought, ideally before take-off, eg:

- Highlighting the important airspace detail on a hard-copy chart including any relevant altitudes or levels, frequencies, pressure settings, etc helps with in-flight management of airspace threats and potential errors.
- When flying near controlled airspace, we need a heightened sense of exactly where we are, the wind direction and thermal drift.

And finally, we can become over-reliant on alarms, which should of course be a thing of last resort. Once spurious warnings have been heard a few times, pilots stop hearing them or even turn the volume down (Cry Wolf syndrome). Pilots experiencing high workload may not even hear audible warnings.

Note: This pilot education piece is based on an occurrence report. We are grateful to the anonymous pilot for the detail.

