

LAA/AWA/19/18
13th September 2019

Placarding Requirements for Aircraft fitted with a Ballistic Parachute Recovery System

In the summer of 2014, a pilot of a SportCruiser aircraft, after taking-off from the Isle of Bute, found that the aircraft was not climbing; during interviews later when reviewing the event, the pilot's initial thoughts were that the engine wasn't performing as it should; though, as all pilots know, it's not just lack of power that will prevent height gain during climb out and it is likely that a number other factors were involved in the very low rate of climb. Initially the pilot thought he would have to ditch in the sea – a straight ahead option – but the aircraft appeared to be maintaining height, so he elected to begin a reduced power, low-level circuit to land back on the into-wind departure runway.

The pilot lost control of the aircraft as he turned cross-wind and the aircraft ended up being suspended inverted across a ditch approximately two thirds along the path of the downwind leg. A fire started almost immediately.

The pilot and his passenger, although injured, survived the accident, the pilot managing to escape the aircraft under his own power then, bravely under the circumstances, he assisted his passenger with the release of his harness and subsequent exit. Both the pilot and his passenger were badly burnt in the accident, sadly, the passenger later died of his injuries.

It was considered by investigators that one of the reasons for the intense post-crash fire was that a Ballistic Parachute Recovery System (BPRS) had been fitted and that, in this installation, the rocket motor and rocket fuel were situated near the firewall, inside the cockpit.

The Air Accident Investigation Branch (AAIB), in their report (EW/2014/08/01), focussed on two aspects of the accident – the first, as normal, addressing the possible factors involved in the accident itself. The second, the BPRS, in particular, the potential dangers to first-responders to an aircraft involved in an accident, fitted with this type of device. In their report, seven safety recommendations were made to address the risk to individuals following an accident involving an aircraft equipped with a BPRS.

To address some of the issues raised, and after consultation with the LAA and BMAA, the CAA published an update to BCAR Section S (to include sub-section K – BPRS requirements) – the basic requirements for small light aircraft (Microlights). In April 2019 the CAA issued a Mandatory Permit Directive (MPD) (MPD2019-05) requiring all aircraft operating under a UK Permit to Fly fitted with BPRS to comply with the new Section S requirements (as listed in Sub Section K) though, to give time for the production of acceptable placards, the compliance time was defined as: 'The next annual (or 100 Hr.) inspection' ... but no longer than 12 months after the MPD's effective date, whichever occurs first.

A copy of the MPD 2019-005 can be downloaded [HERE](#).

A copy of BCAR Sub-Section K can be downloaded [HERE](#).

A copy of the accident report discussed briefly above (EW/C2014/08/01) can be downloaded [HERE](#).

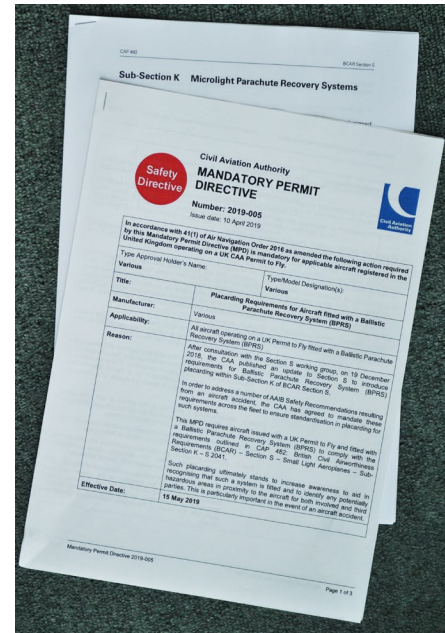


Fig 1. After consultation with the LAA and BMAA the CAA amended BCAR Section S to include a section requiring placards to be fitted to UK Permit aircraft fitted with BPRS. The requirements of this section have now been mandated by the issuance of a CAA MPD and apply to all aircraft operating under a UK Permit to Fly.

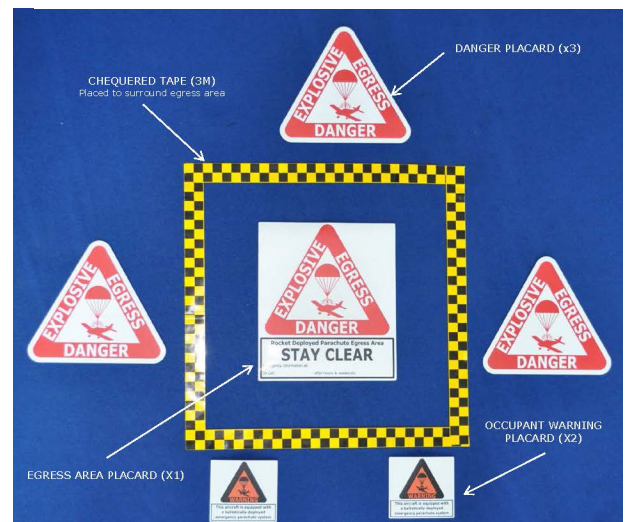


Fig 2. Of course all aircraft are different, so placard placement will vary from aircraft to aircraft (and BPRS type). The LAA are now able to make available a general kit of labels which should include enough placards to meet the requirements of BCAR Section S, Sub Section K. Placard sets are available via the LAA Shop.