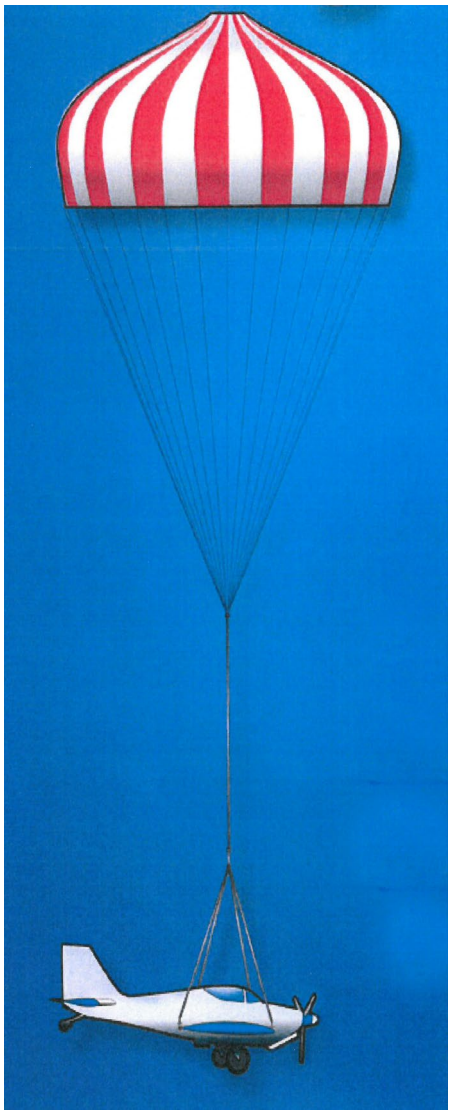
AIRWORTHINESS ALERT

LAA/AWA/20/07
3rd April 2020

LAA Technical Leaflet (TL 3-27)

Ballistic Parachute Recovery Systems

A Ballistic Parachute Recovery System (BPRS) is a parachute system designed to recover the whole aircraft (airframe and occupants) to the ground in an emergency.



A BPRS consists of a parachute attached by strops to hard points on the aircraft, which is deployed by pulling an emergency handle located in the cockpit. The parachute is usually ejected from the aircraft by a (chemical) rocket, although other stored energy devices, such as compressed air, have been used.

After an investigation into a fatal accident involving an LAA aircraft, a number of recommendations about the need for placarding on a BPRS equipped aircraft (to alert first-responders) was made in the AAIB's subsequent report. As a consequence of this, in May 2019, the UK CAA issued a Mandatory Permit Directive (MPD 2019-005). This MPD requires owners of all aircraft operating under a Permit to Fly, fitted with a BPRS, to placard the aircraft so that, in the event of an incident or accident, first responders will be aware of the associated dangers attached to unexploded munitions in the airframe.

LAA Engineering has recently published a Technical Leaflet (TL 3.27 – Ballistic Parachute Recovery Systems) includes important general information for pilots, builders, owners, operators and LAA Inspectors of LAA aircraft fitted with a BPRS. The TL also includes a detailed description of the markings and placards required to be fitted to BPRS-equipped aircraft, together with guidance on placard locations.

Because most BPRS systems involve the use of explosive material to power the parachute's ejection, it is essential that operators of aircraft fitted with these devices ensure that manufacturer's overhaul periods are strictly adhered to. It must also be remembered that the removal of the device, for any reason, without LAA HQ approval, may invalidate the Permit to Fly.

The TL also contains detailed information about the UK CAA's airworthiness requirements for BPRS, and the LAA's interpretation of these requirements.

MPD 2019-005 can be downloaded HERE.

TL 3.27 Can be downloaded HERE.

Different views abound about the wisdom of fitting explosive safety devices to amateur-built aircraft. But we're sure all pilots would agree that the safety of first responders to an accident or incident involving an aircraft fitted with BPRS is of paramount importance.

Though many have expressed a view that placarding an aircraft 'spoils' the aircraft's appearance, it is absolutely vital that aircraft fitted with BPRS equipment are appropriately placarded. In the event of an accident or serious incident, it's only fair that those first on scene are able to take account of the associated risks involved in un-deployed parachute systems.