SCOTTISH GLIDING CENTRE

SAFETY NEWSLETTER

Topic of the month: January 2025

Flying Within Weight and Balance


ASK21 G-CLOV wks. 21929 WEIGHT AND BALANCE
DATA PLACARD
Approved for;
Max. speed for calm air 151 kts
Max. speed for rough air 108 kts
Max. maneuvering speed (vm) 97 kts
Max. aero tow speed (vf) 97 kts
Max. winch launch speed (vw) 81 kts
Min. payload front seat 70 kg (154 lb)
Max. payload front seat 110 kg (242 lb)
Max. payload rear seat 110 kg (242 lb)
Max permissible all up wt. 600 kg (1320 lb)

It is getting to the time of year again where too much festive cheer can push pilots outside of their aircraft's ballast and Centre of Gravity limitations. All manufacturers publish C of G and load limitations for their aircraft, and these are usually complied with by determining and then placarding minimum and maximum in-seat mass limits.

Flying outside your aircraft manufacturer's specifications, including C of G limitations, likely invalidates your insurance.

Before Take-off

- **If you are not sure about your current weight, find out before flying!** You should weigh yourself fully clothed and factor in the weight of a parachute (about 7kg). We strongly advise against flying without a parachute. There is a set of calibrated scales in the briefing room and launchpoint.
- **Check the placard of the glider you are flying, even if you are experienced on the type.** Club gliders especially may be modified at any time, and the limits may have changed. Limits may also vary between different aircraft of the same type. Note that two-seaters often have different front seat limits depending on the mass of the person in the back. In the K21, up to a third of the mass of the pilot in the rear seat may be added to the front seat to meet the minimum requirements.
- **If the cockpit load is too low (you are too light), fit ballast** in compliance with your aircraft's flight manual. If you do fit ballast, ensure that it is screwed down and not loose (or in the case of a lead cushion, is not going to move during flight). Aircraft are very sensitive to imbalances. A far-back C of G can drastically change an aircraft's spin characteristics and in extreme cases may make effective control impossible.
- **The aircraft cannot be flown outside of its limitations.** If you are currently too heavy, that unfortunately means you cannot fly in that configuration. **Do not accept an unbalanced glider.**

Continuous Airworthiness

All BGA CAO gliders are required to be reweighed every 10 years, or after modifications or repairs that may affect the C of G. When making changes or fitting new equipment, consult with an inspector if there is a possibility of modifying the aircraft's C of G.

Happy Soaring

Ollie