



Pilot's-eye-view of the target at Kobarid - note headcam frame adjusted to capture hand movements

## Paragliding Accuracy equipment

Following on from the recent articles on paragliders and harnesses, Andy Webster discusses other equipment used in paraglider accuracy work.

**Helmets.** FAI competitions require that you use helmets certified to either EN966 (HPG), EN1077-A and -B (Snow Sports), ASTM 2040 (Snow Sports) or Snell RS-98. Most helmets on sale for paragliding should have this rating, but it's worth checking before you make a purchase.

Helmets offering good all-round vision are good for accuracy. Chin guards are probably best avoided as they have the potential to block your field of view when looking downwards at the target. Most accuracy pilots use helmets that do not cover their ears to help them hear the wind noise - giving an indication of airspeed. They often report that they don't like reverting to helmets that fully cover their ears. A helmet that does not overheat your head while queuing at launch in baking sunshine is also beneficial.

Other factors to consider when choosing a helmet are attaching headcams and affixing competition numbers. Pilots who use stick-on headcam mounts need a flat surface at the optimal camera position to stick their camera mount to. Alternatively, helmets need to be compatible for strap-mounted headcams. Sufficient flat surface on the side of a helmet to affix a large competition number also needs to be considered.

**Headcams.** There is a lot of debate about whether a headcam or a camera on the ground provides the best perspective on accuracy approaches to learn from. I film every flight using a headcam as it offers good feedback to spot mistakes or other

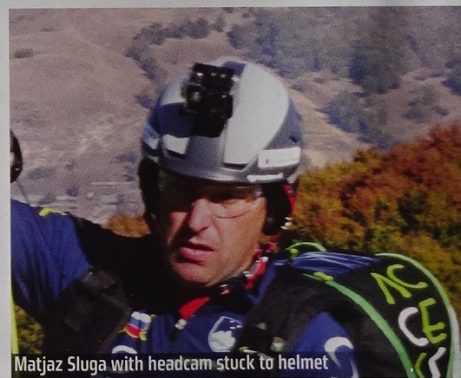
issues of note. The most important aspect is to watch how your brake inputs affect your flight, so the camera's field of view needs to get your hand movements in.

The headcam therefore needs to be pointing sufficiently downwards to cover hand movement, yet mounted sufficiently towards the front of the helmet to stop the helmet itself obscuring the field of view. Forward view and hand movement becomes a bit of a trade-off, and a bit of trial and error is required to find the optimal camera position and angle. If you want to film some general flying you need to remember to reset the camera angle to a more forward view before take-off.

However a word of warning: There is a risk of paraglider lines getting caught round the camera in an extreme collapse or whilst on the ground. Don't fix the camera too strongly to your helmet - and accept that losing a camera is a better option than potentially breaking your neck.

**Footwear.** The FAI rules state that footwear must be suitable for a safe take-off and landing. Pilots generally use boots or trainers in accuracy competitions. Big boots or broad-toe trainers are aren't ideal for striking a 2cm DC on an automatic measuring device (AMD), and therefore most pilots choose to stick small pieces of rubber close to the toe of their footwear.

There are FAI rules on the dimensions and hardness of the rubber used so as not to damage the AMD, and these could be the subject of spot checks at competitions. The



Matjaz Sluga with headcam stuck to helmet

Photo: Andrew Webster

rubber hardness should be no more than 70 (similar to a car tyre) when measured on a Shore Durometer, and no less than 15mm wide or in diameter.

The position of the rubber is down to pilot preference, but most have it at the end of the tread in the middle of the toe so that only the rubber will make contact with the AMD when the boot is angled down at about a 45-degree angle. In this position you won't be treading on the rubber, exposing it to wear when walking around, although some pilots have detachable pieces of rubber. This arrangement is the opposite to parachuting, where pilots modify the heels of their footwear for a heel landing as they are allowed to fall backwards without penalty. In paragliding accuracy, anything that encourages a fall should be avoided, and generally you will be landing with some forward ground speed that you need to run off.