

# Safety during mixed power and gliding operations

## ***Introduction***

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Easterton is a rare airfield where gliding peacefully coexists with power flying. Because of this there are particular hazards to be aware of which are not normally encountered at non-gliding sites. This document describes the most likely hazards and how best to avoid them, and includes various maps at the end to clarify how gliding operations are normally set up.

It is not possible to cover every contingency in a short document, so do not hesitate to seek explanation from other pilots or club members if there is something you want to understand better. If you see something you feel is unsafe or could be improved in some other way, please raise the issue either directly or with the club safety officer.

## ***1. Gliders***

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### **1.1 Radio in the circuit**

Gliders will normally call downwind when established in the circuit. A radio problem may prevent the pilot from calling, or an inexperienced pilot may forget to do so.

The tug will make downwind or base leg calls as appropriate, as well as a 'final' call. The tug will frequently be much higher in the circuit than normally expected, and be descending steeply, which can make its position in the circuit difficult to predict. In light wind conditions the tug may land downwind.

Aim to keep your circuits reasonably close in to the airfield and call "Final" once you are within a mile of the runway. Calling final when you are still two or more miles away from landing can put a glider already in the circuit in a difficult position, as they may feel obliged to give way but unable to safely do so.

***If you are in any doubt as to whether other aircraft in the circuit are aware of you, broadcast your intentions.***

### **1.2 Ground movements**

Landing gliders will normally try to clear the runway as quickly as possible, but may not always be able to. If the pilot is aware that their glider is in the way of a landing aircraft, and has help available, they may be able to push off to one side. Experienced glider pilots will usually aim to steer off to one side at the end of the landing roll to keep the runway clear. However, especially during training, a glider may be left blocking the runway until it can be retrieved by a tow vehicle.

A glider which has landed in the 'dip' at the middle of the airfield may be difficult or impossible to see from either end of the runway. Please check with the launch point by radio prior to takeoff as they, or one of the ground vehicles, may be able to inform you if a glider is hidden in the dip.

If you become aware of a landing glider while you are on the runway, taxi off to one side to allow them room to land, or hold your position at either end. A motorglider must be treated as a glider when it comes to landing, as it may have the engine shut down and be unable to go around if the runway is blocked.

***Make use of the radio to check the runway is unobstructed, and if you cannot assure yourself of a clear landing or takeoff roll, wait until the glider has been moved.***

### 1.3 Propwash

A parked glider is very vulnerable to propwash, which can lift or damage the wings, spin the glider round or even blow it over. *You must plan your taxi and takeoff run to avoid blasting any parked aircraft*, particularly if you have a powerful engine.

Gliders are normally parked off the runway, but may be left unattended in a position which is inconvenient for your preferred takeoff run. You may have to accept a slightly different takeoff run if this is the case.

*See Figure 1 for a map showing where launch points are normally set up.*

## 2. Aerotow operations

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### 2.1 Launching

An aerotow launch is normally signalled over the radio using the calls "Take up slack" and "All out". However, if the launch point does not have a radio available the launch may be conducted using hand signals.

*If the glider's wings are level, assume a launch is about to take place and remain clear.*

The tug may be positioned in front of a glider with the engine running, but with the glider not yet ready to launch. If you are ready before they are, you may be able to take off ahead of them. Check with the tug pilot before you do this - it may be that they are waiting for a landing aircraft or for the runway to be cleared.

### 2.2 Ropes

When operating from the east end of the airfield, the tug will normally be parked to the south of the Perfo runway, or in some cases at the end of the runway itself if a launch is expected. When operating from the west end the tug will normally be parked to the north of the runway.

The tug will normally have up to 180ft of rope trailing behind it. *Do not taxi over a tow rope*. It could become caught in the propeller or be picked up by the tailwheel, with potentially disastrous consequences.

In theory, the rope could be anywhere within 180ft of the tug. In practice the rope is most likely to be either tidied behind the tug or laid out ready for an expected glider at the launch point, so those are the areas to be most wary of. If in doubt, do not proceed beyond where the tug is parked. Particular care is needed when operating from the west end of the airfield as space is much more constrained.

If both you and the tug are taxiing, remain well clear of the tug. If in doubt, speak to the tug pilot and they may be able to indicate a clear path for you.

*Figure 2 shows where the tug and its rope are most likely to be.*

### **3. Winching operations**

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#### **3.1 Launching**

During winching operations, the winch is normally located at the extreme end of the airfield - either west or east end - and close to the tractor track to the south, leaving the north side of the airfield clear for landing and retrieving gliders and all powered aircraft movement.

Communication between the winch and the launch point may begin with a radio call at the start of a launch, and thereafter by light signal. Occasionally the radio call may be omitted so it is not a reliable indicator of an imminent launch. If the light on top of the winch is flashing, the winch cable is 'live' - either about to launch a glider or being reeled in after a launch - and you must **remain clear of the runway until the launch is complete and the winch has shut down.**

A typical launch may be around 1,000-1,200 ft high, though this may vary with conditions - Easterton is marked on half-mil charts as having possible winching up to 2,400 ft AMSL. A cable break can potentially occur at any height and could result in the glider landing back on the runway in less than a minute. The broken cable end may drop anywhere and will need to be retrieved before flying can recommence.

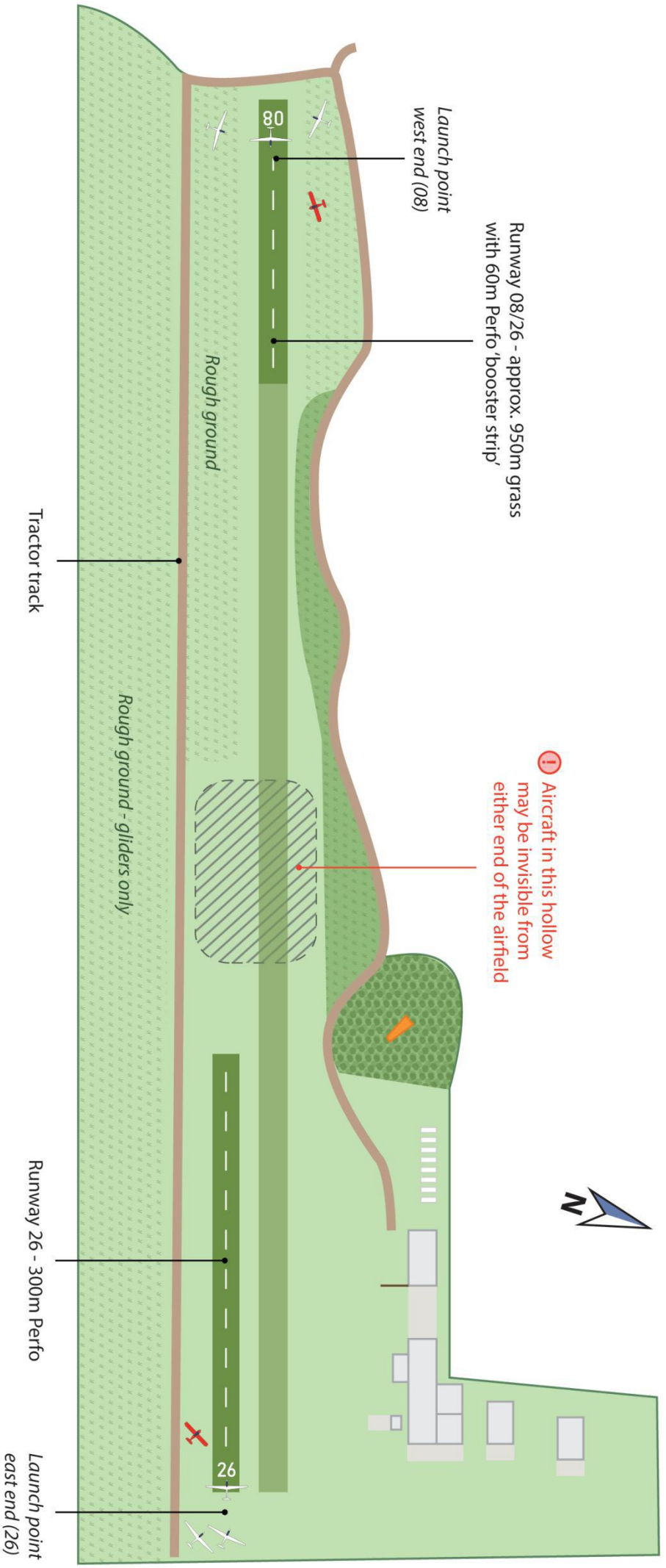
If in doubt about whether winch launching is ongoing, check with the launch point by radio.

#### **3.2 Cables**

The winch uses two white Dyneema cables, only one of which is used per launch. After a launch the remaining length of cable is rapidly reeled in, stabilised with a small parachute. The cable may drift across the airfield particularly if there is any crosswind. Once both cables have been used, they may be drawn back to the launch point using the retrieve truck. An unused cable may be reeled in along the ground.

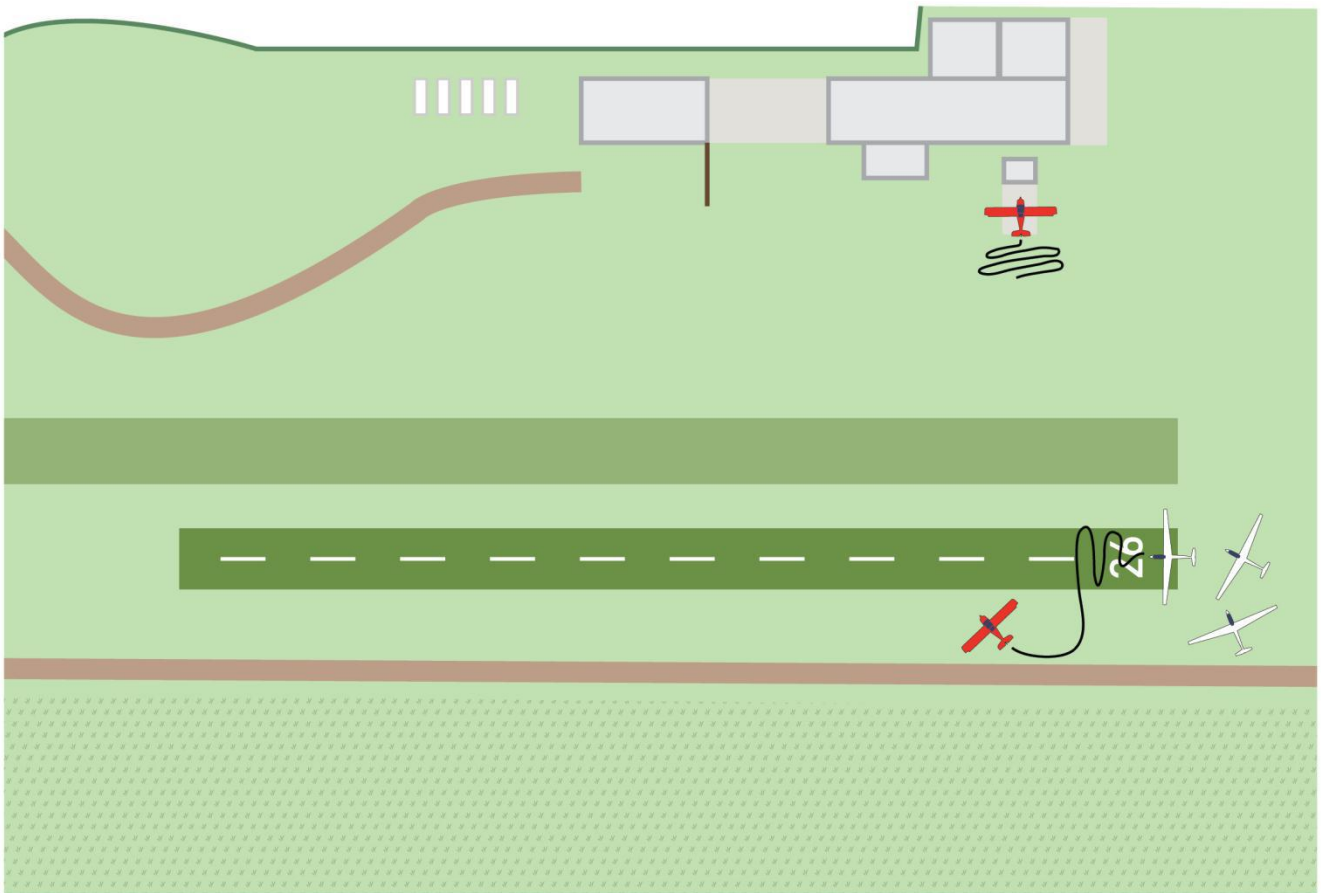
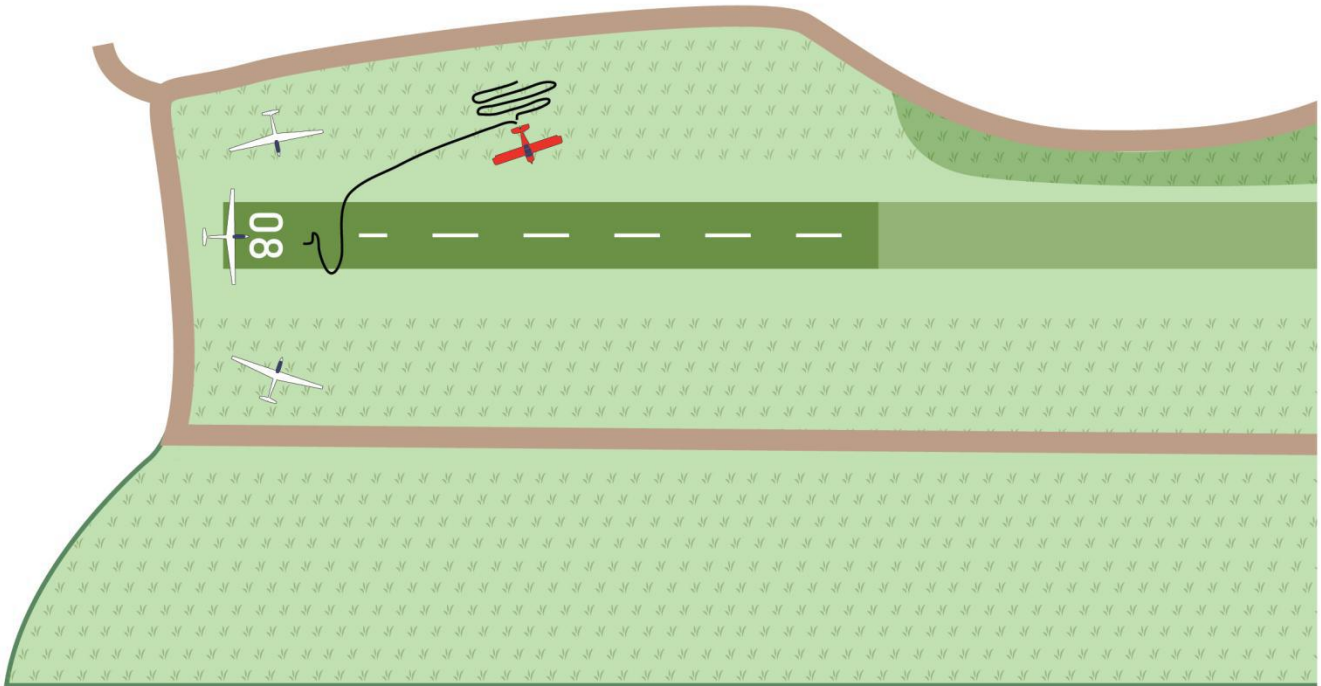
The cable itself is extremely difficult to see both on the ground and in the air. A stationary cable can become caught up in an aircraft tailwheel, while a moving cable can saw through an aircraft or vehicle in seconds. **Do not taxi over a winch cable.** The north side of the airfield will normally be kept clear for aircraft movements so it should not be necessary to manoeuvre near the cables on the ground.

**See figure 3 for a map showing how the airfield is normally set up for winch launching.**



**Figure 1:** Overall view of the airfield, showing how launch points are set up at either end for aerotow launching. The north side of the airfield is preferable for powered aircraft movements as it avoids most of the rough ground.

**Figure 2:** The most likely locations of the tug and its rope between launches. The rope is normally tidied behind the tug but may be placed at the end of the runway ready for a launch if one is expected.



**Figure 3:** Overall view of the airfield showing how launch points are set up at either end for winch launching. The north side of the airfield is largely clear for landing and retrieving gliders and all powered aircraft movements.

