



**BRISTOL AND
GLOUCESTERSHIRE
GLIDING CLUB**

SOARING WITH THE BEST

Bristol & Gloucester Gliding Club Standard Operating Procedure Wing Running Winch and Aerotow

V1.0, April 2018

Owner: CFI



Preface

This document describes the Standard Operator Procedures associated with the Wing Running element of the launch operation when launching by Aerotow and Winch to be applied during operations at the BGGC.



Wing Running (Winch & Aerotow)

Objective

The aim of the wing runner is to keep the wings of the glider parallel to the ground until the glider has reached sufficient airspeed for the pilot to control them.

Considerations

In significant crosswinds there may be force up or down on the wing trying to cause roll. Since the wing runner is controlling the wing the pilot is unaware of this force. If the pilot remains unaware of this force the glider will roll when you release the wing.

To prevent this happening you must warn the pilot before the launch cable is connected. Shout a warning &/or shake or bang the wing. Once the pilot is watching, momentarily let the wingtip go so they can see the roll strength and balance it with aileron. If you cannot pre-warn the pilot and they do not control the roll force you stop the launch.

During the launch run do not grip the wing-tip tightly. That will effect the steering of the glider. Hold the wing exactly as it is being done, expertly, in this photo (taken at a Nationals).





Safety Points

Accidents have been caused by wing runners releasing with roll force on (see above).

The holder should hold the wing by their finger and thumb in such a way that their fingers and clothing are well clear of any catch point on the wingtip. Accidents have been caused by wing runners' rings or clothing being caught on skids or wing tip.

Wing Runner Actions

Double check the glider is ready for launch, dollies off and airbrakes¹ closed (see note)

Make sure your path ahead is clear of obstructions, tyres, strops etc.

Stand level with the wingtip but clear outside it, hold the wingtip by its trailing edge using your thumb and first finger.

Hold the wings parallel to the local ground surface so BOTH wingtips have maximum ground clearance (see variation for Crosswind Aerotow below).

If you feel significant force up or down on the wing warn the pilot before they hook on. If they do not heed your warning or are already hooked on STOP THE LAUNCH till they re-set the ailerons to reduce the roll force.

As the glider accelerates run forward, but do not tighten your grip.

DO NOT hold it back in the slightest. DO NOT "hang on to" the wingtip.

When you can no longer keep up with the wingtip let it SLIP freely out of your fingers, turn, look for hazards and get safely back to the launch point.

Other Considerations

Crosswind Winch

The wing runner should hold the downwind wing. Gliders tend to weathercock into wind but if the wing runner inadvertently holds onto the downwind wing at least that won't aggravate the weathercocking effect (a skilled wing runner can reduce weathercocking by mild hold-back on the tip).

Crosswind Aerotow

As above but be aware that once the tug applies full power its downwind-drifting slipstream will lift the downwind wing. In these conditions hold the wing more firmly than normal and push it down 30cm till you have to release it. If the lift force seems excessive STOP THE LAUNCH.

¹ A few gliders may require the use of some air brake at the start of the ground run. This could be to apply airbrake-controlled wheelbrake to prevent over-running the cable or to enhance Roll control. If you are unsure that one of these is the reason STOP THE LAUNCH and query it.



Lookout

The wing runner is an additional pair of eyes for the launch and should be alert to wind changes that might effect the pilot's control of the glider, obstructions in front of the glider, tail-dollies still attached, canopy/ies not properly closed, airbrakes left open, aircraft on approach, downwind or overflying – in fact anything that might impact the safety of the launch.

Launch aborted

If a launch is aborted then AFTER the pilot has released the cable, you may signal the fact that the glider is not about to move by lowering your wingtip to the ground.