THE MURRAY BRIDGE GLIDING CLUB INC

PO BOX 1509, VICTOR HARBOR SA 5211
WEBSITE murraybridgegc.com

CLUB OPERATIONAL PROCEDURE

** OPERATING THE GROB 109 IN STRONG WIND CONDITIONS **

1. Background

1. Over the last few years 1 have been personally aware of several incidents involving a loss of directional control on takeoff in the Grob 109, and two nose over / prop strike accidents while taxiing. All of these incidents / accidents had one major contributing factor - the aircraft was being operated in stronger than normal wind conditions at the time.

2. Taken individually, they appear to be isolated events that were able to be dealt with appropriately as they occurred. However, taken together they are indicative of a trend that has operational safety concerns that must be recognised and addressed.

2. Club Operational Procedure

1. The maximum cross wind component allowed on takeoff in the Grob 109 is 11 knots. Pilots will not attempt a takeoff in crosswind conditions that are judged to exceed 11 knots.

2. Even if the cross wind component for the takeoff run is less than 11 knots, i.e. the wind is blowing strongly but more or less down the runway. it is probable that the aircraft will need to be taxied through a strong cross wind at some stage, and appropriate measures must be taken to ensure that the use of high power settings and coarse use of braking to maintain directional control while taxiing do not lead to the possibility of a nose over accident. (See "Considerations" below).

3. Considerations

1. A good crosswind takeoff technique is important in operating the Grob 109 safely in strong wind conditions. Keeping the tail wheel on the ground will help to keep the aircraft straight on the initial ground run.

2. Anticipating the swing into wind and leading with the appropriate use of rudder to keep the aircraft straight is vital. Experience shows that once the G109 is allowed to swing nose into wind. it can be very difficult or impossible to regain control.

3. Pilots need to be especially wary of a cross wind from the right side of the aircraft as this exaggerates the natural tendency of the Grob 109 to swing to the right on takeoff.

4. When taxiing in strong wind conditions, other factors need to be considered when assessing operational safety. Soft ground. a rough surface, long grass and lower than optimal tyre pressures will all exacerbate control problems in windy conditions.

5. Appropriate pilot experience also needs to be considered. Even if the cross wind component is less than II knots, a loss of directional control can occur and has occurred in the past.

6. When taxiing in strong wind conditions, the use of an appropriately experienced and briefed wing walker would be useful and acceptable.

7. A small increase in wind speed can have a large effect. If wind speed doubles. then wind force is quadrupled.

8. Pilots need to take into account that wind gusts can exceed the average wind speed by 50% or more.

9. Experienced pilots familiar with different aircraft can become complacent. Most light aircraft are safe in 15 or more knots of crosswind - the Grob 109 is not.

10. Use of wing walkers while taxiing, angling the aircraft into wind as much as is safely possible for the takeoff run, operating from runways that have a suitable runoff area if directional control cannot be maintained and the takeoff has to be aborted, and an experienced pilot will all make operating in stronger winds safer. However none of this overrides the requirement that the G109 shall not be operated over the maximum allowable I I knots crosswind, and under further adverse conditions this figure should be reduced.

4. Implementation

1. A copy of this draft Club Operational Procedure will be sent to all club members for comment and feedback. Once the final COP is done all members, present and future will receive a copy.

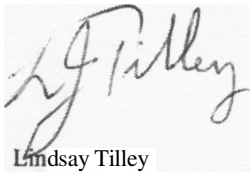
2. A copy will be posted in both hangars.

3. A copy will be placed in the MBGC G109 in the flight manual folder.

4. Exercising of the Independent Operator endorsement will be dependent on understanding and following this Club Operational Procedure.

5. The duty instructor can halt flying operations and curtail aircraft ground movements if they feel operations would be potentially unsafe for any reason.

6. If the club aircraft is operated outside these guidelines and damage occurs, the pilot may be responsible for the cost of the insurance excess at the discretion of the Murray Bridge Gliding Club Office Bearers.



Lindsay Tilley

CHIEF FLYING INSTRUCTOR - MBGC

USING THE WIND COMPONENT CHART

Assume the wind is assessed as coming at a 30 degree angle from the take off direction., and that it is judged as having a speed of 40 knots.

To calculate the amount of cross wind component, find the 30 degree point on the chart (Item I) , and place a dot at the intersection of the wind angle line and the arc representing wind speed (Item 2).

By drawing a vertical line from the dot down to the cross wind component scale. it is found that a 30 degree cross wind angle at 40 knots is the equivalent of a 20 knot direct cross wind (Item 3).

To determine the head wind component needed for the computation of take off and landing distances, a horizontal line is drawn from the wind dot to the head wind component scale on the left hand side of the chart (Item 4).