

*SOARING ASSOCIATION OF CANADA*  
*Solo Standard for Glider Pilots*  
*Recommended Practice Series*



*SOARING ASSOCIATION OF CANADA*

**SOLO STANDARD**  
**for**  
**GLIDER PILOTS**

**GUIDELINES FOR CFI's**

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SOARING ASSOCIATION OF CANADA  
L'ASSOCIATION CANADIENNE de VOL à VOILE

A NON-PROFIT ORGANISATION FOUNDED IN 1945  
TO FOSTER MOTORLESS FLIGHT IN CANADA

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# SOLO STANDARD FOR GLIDER PILOTS

## 1. Background

The following guide is to be used by CFIs and instructors when evaluating the competence of student pilots to go solo and the conditions under which the flight will be conducted. The SAC Soaring Instruction Manual *SOAR and Learn to Fly Gliders* is the reference for the methods to be used in the evaluation. This recommended standard is provided for CFIs to ensure a uniform standard for sending glider pilots solo in Canada. A very important part of this is safety, to absolutely ensure that safety comes first when considering when and whether to send a student pilot solo for the first time.

*The overall question that must be satisfied is:  
"Will the student be safe if sent solo now?"*

To answer this question, we must objectively examine the student's knowledge, skill and attitude in light of his or her overall experience, plus we must ensure that the weather and other conditions are suitable for sending our student off on a first solo flight.

## 2. Knowledge

All student pilots must be tested by the club, using a written pre-solo exam to be given to the student pilot a day or two before the flight. All students should be required to obtain a minimum of 90%, and the answers are to be corrected to 100%.

## 3. Skill

Skills are three-fold:

- i. **Flying Skills.** The mechanical or flying-handling skills must be adequate to ensure the student's safety. Principal among these skills are good speed control and coordination. The student also must have completed adequate stall and reduced 'g' practice (must not be sensitive to reduced g), as well as be comfortable with full spins and have demonstrated the correct recovery technique. The student must be able to demonstrate recovery from out-of-tow position to normal aerotow position without difficulty; and on winch be able to signal change-of-speed requests competently. Recoveries from rope breaks on aerotow or cable breaks on winch must have been adequately and satisfactorily practised, and the student pilot must be competent with launching under windy conditions.
- ii. **Judgement Skills** are multi-faceted, **but** our primary focus should be on the **3-dimensional judgement** that is key to the student's circuit flying, and his or her Pilot Decision-Making via the *SOAR* process. Included in this item; the student shall have completed off-field landing training – see the Bronze badge requirements – which shall have included field selection and circuit planning practice into a strange field located near to the club's runways. Note this does not imply landing in that field, but can include flying around it and, after landing, driving to it and inspecting it more critically from the ground.

The student also should have demonstrated competent, modified circuit ability for recognition of conditions such as being too low for a *normal* circuit.

- iii. **Lookout** skills should be a well-established habit by solo. Check that the pilot is looking behind the wings as he or she scans before all turns, also now includes a look above and ahead, and that they maintain a constant awareness of the need to look out continuously.

#### 4. **Pilot's Attitude**

We should have imparted to the student a self-reliant, Pilot-In-Command attitude, to ensure the pilot's safety when the instructor is no longer in the back seat to call upon for assistance and advice. Check that the pilot is keen to go solo for the right reasons and is not being pressured by him or herself, or anyone else, to go solo prematurely.

#### 5. **Conditions**

Weather conditions should be suitable, for example visibility must be adequate (a clear horizon or, in the mountains, visibility typical of normal training flights, the sun angle not extreme, and sufficient daylight to be available for the entire flight and landing). The student's emotional state should be normal, with no indication of abnormal stress unrelated to the pending solo flight.

#### 6. **Experience and Training**

The student should have a sufficient number of flights and hours (i.e. **experience**) to have demonstrated the following prior to this solo flight:

- **Consistency** in the required flying and judgement skills, under challenging conditions (e.g. strong winds and cross-winds);
- Adequate **exposure** to the environment, the airfield, the aircraft and the student's own limits, that he or she will have to handle when flying solo;
- Demonstrated **ability** to recognise any condition that could lead to a collision with another aircraft, and ability to quickly act correctly to avoid the collision;
- Ability to give, to recognise and to act correctly to the aerotow **emergency** signals (glider to tug, and tug to glider), or on winch launch, to give clear speed signals promptly as required.

#### 7. **Documentation**

Check that the required documentation is in place (e.g. medical, student pilot permit in the student's possession, radio operator permit).

#### 8. **Supervision**

Finally, the solo student **must** be under the supervision of the instructor who authorises the solo flight - which is not only to ensure the safety of flight conditions, but should be used to provide a debriefing after the flight, and to further the student's training.

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