Gliding Australia Training Manual

Trainer Guide

Unit 26
Assessment of Competence for First Solo

AIM

To:

- Assess whether the student is competent to safely carry out a successful first solo flight;

- supervise the safety, conduct and debriefing of the first solo flight; and

- promote continuance of further training towards the GPC.

PRE-REQUISITE UNITS

- GPC Units 1 through 25.

COMPLEMENTARY UNITS

There are no complementary units to this GPC unit.

COMPETENCY ELEMENTS AND PERFORMANCE STANDARDS

ELEMENT	PERFORMANCE STANDARDS
1. **Pre-solo flight review and briefing.**	● **Demonstrate:** ○ Meeting the experience and training criteria through inspection of the student's training record and logbook to ensure Units 1-25 are signed as competent - particularly GPC Unit 22 (Rules of the Air). ○ Units 11 and 19 only if conditions allow, Units 21 and 22 if aircraft equipment allows. Units 24 and 25 rated 4 or 5. ○ That the Student's logbook includes the GFA Flight Radiotelephone Operator's Logbook Endorsement. ○ Consistently safe take-offs, circuits and landings. ○ Application of lookout scanning techniques ○ Recent successful practice in abnormal and emergency procedures. ○ Assessment of weather and traffic conditions as suitable for the flight. ○ Identification of and briefing on possible threats and errors. ○ Assessment of the student's medical, attitude and physical suitability for solo flight. ○ Acknowledgement of the solo flight approval, parameters, limitations & instructions set by the authorising Trainer.
2. **Solo glider flight.**	● **Demonstrate:** Solo flight conducted in accordance with: ○ CASA/GFA Regulations, airframe operational procedures & limitations and local aerodrome procedures. ○ Briefed procedures with a normal aircraft landing.
3. **Post solo flight review and briefing.**	● **Demonstrate:** ○ Self-evaluation in debriefing on the solo flight performance with the authorising Trainer. ○ Recording of solo flight details in the student's training record and logbook. ○ Knowledge of the specific limitations and requirements for further solo flight set by the authorising Trainer.

KEY MESSAGES

- The student should be instructed to repeat the last successful performance and stay within specifications of the solo flight plan approved by the authorising Trainer.

- Whilst solo is an important step in a pilot's development, it is only an intermediate point and that further training will lead to a GPC with the privileges associated with that achievement.

- Safety before polish with the skill to handle the degree of responsibility given them, is the standard a student must attain before first solo.

LESSON PLANNING AND CONDUCT

Briefing

There is no ground briefing component for this Unit.

Flight Exercises

The main requirement is not for polished flight but for consistently safe flight with general competence, ability to identify threats, prevent or mitigate errors before the safety of the flight is affected.

The Trainer must be satisfied that the student can:

- Conduct all checks correctly without prompting.

- Conduct a take-off and launch without instructor intervention.

- Cope with low level launch failures without panic.

- Maintain adequate lookout and situational awareness.

- Brief on the emergency procedures for the launch system in use.

- Identify symptoms of an approaching stall.

- Recover from a stall with minimum loss of height.

- Safely convert from Soaring Pilot to Landing Pilot without prompting

- Conduct the pre-landing check correctly.

- Maintain a safe speed near the ground.

- Conduct balanced turns without excessive bank onto base and final.

- Fly several consistently safe circuits and landings in a row.

- Maintaining stabilised approach on each flight.

- Exhibit no faults on landing such as holding off too high or bouncing.

- Cope with the prevalent traffic and weather conditions.

- Maintain directional control of the aircraft on the ground after landing.

Notes:

- Trainers should not submit themselves to any pressure of persons, time or weather conditions to send any student solo that they still have doubts over.

- It is recommended that where there are lingering doubts, another Trainer is asked to conduct an assessment flight with the student to more clearly identify any problem areas.

- Ideally the student should be given minimum notice of their first solo as anticipation can lead to apprehension and deterioration of skill.

- Everything should be in readiness so that the student can be sent off after a dual flight with the minimum of delay and in the same aircraft.

- Briefing prior to first solo should be kept to a minimum and only those things which they will find different (e.g., aircraft ballast configuration, improved rate of climb on the launch, lower rate of sink, different trim positions and glider "feel") when flying solo.

- If the student shows distress at the prospect of going solo, under no circumstances should they be forced to fly solo against their will.

- The Trainer should ascertain then from the student any sequence about which they feel apprehensive, and further dual flights should be made with emphasis on the sequence in question until the doubt in the student's mind as to their ability to handle the sequence is eliminated.

- The authorising Trainers should also report the student's progress to the CFI and Training Panel to ensure follow-up with further GPC training.

- The Trainer should ensure that any remedial training/action, where required, is noted in the Student Training Record.

- The Trainer must ensure that they do not send a pilot solo in deteriorating light or weather conditions.

Advice to Trainers regarding their responsibility to maintain safe flight.

Can the Trainer sit back relaxed on several flights with the student, without having to handle the controls or cue the student at any stage?

If the trainer feels it necessary, at any part of the flight, to be very close to the controls or give advice during any sequence or stage of the flight, the student requires further training before solo.

Ground, launch and support staff must be briefed by the authorising Trainer prior to the solo flight.

The authorising Trainer should closely monitor and supervise the solo flight from beginning to end with access to a VHF Flight Radio.

COMMON PROBLEMS

Problem	Probable Cause
● Nervous / under confident student.	Student may feel they are not ready for solo flight.

		Trainers can go through training record to demonstrate competence and ask student what concerns or questions they have. If still uncertain, additional pre-solo assessment flights can be made to show student that they are sufficiently skilled. However never force a student to fly solo if they do not wish to.
●	Overconfident / demanding student.	Student may feel they are being 'held back' from going solo as their perception of their competence is higher than the Trainer's. Identify and discuss the areas of concern with the student so there is no doubt about the areas of competency that require improvement. An assessment flight with a different trainer may assist in identifying areas requiring improvement.

Debrief

Ensure the student is congratulated on their accomplishment and advised on the limitations of future solo flight such as the need for check flights and maintaining currency.

Discuss any issues:

- Identified by the student during their flight.

- Noted from the ground by the supervising Trainer.

THREAT AND ERROR MANAGEMENT

- Threats presented by prevailing environmental conditions (weather, traffic, etc.) are critical issues to be considered for the solo flight. The student and Trainer should independently assess these.

- Aircraft loading limitations may present a threat that the student is not used to due to the weight of the back-seat Trainer not being present for the solo (explain the glider may get off the ground quicker etc; landing may be slightly different). The student will need to understand how to fit ballast securely in the aircraft.

- It is recommended that if possible, the authorising Trainer has access to a handheld radio for the duration of the solo flight to alert unexpected conflicting traffic or conditions. However calls should be kept to the minimum required for important information to avoid this being a distraction to the student.

TRAINING MATERIALS AND REFERENCES

- GPC Unit 26 Pilot Guide.

- Flight Instructor Manual – Aeroplane Issue 2: CASA 2006.

- Flight Instructor Reference Manual: Recreation Aviation Australia 2017.