

GLIDING FEDERATION OF AUSTRALIA

A B AND C CERTIFICATES

Requirements

Privileges and limitations

Explanatory notes

Oral examinations

Effective date, 1st July 1992

"A" CERTIFICATE

Requirements

1. Minimum age 15 years.
2. GFA medical declaration signed.
3. Minimum of 5 solo flights with normal landings.
4. Satisfactory check flight, which must include the following as a minimum
 - (a) An awareness of pre-spin symptoms and a demonstration of the correct action to prevent a spin developing,
 - (b) An accurate circuit without reference to the altimeter,
 - (c) Correct handling of selected emergencies at the discretion of the checking instructor.
5. Oral examination **on basic** theory and flight rules and procedures.

Privileges and limitations

1. May only fly solo **under** the direct supervision of an instructor.
2. **May carry out local** soaring only.

"B" CERTIFICATE

Requirements

1. A total of 15 solo flights with normal landings, including at least one soaring flight of not less than 30 minutes duration. Note: This means an overall total of 15 solo flights, not 15 solo flights since qualifying for the "A" Certificate).
2. Completion of post-solo training syllabus in accordance with the Instructor Handbook.
3. Oral examination on basic theory, flight rules and procedures (including GFA Ops Regs. and MOSP) and basic airworthiness.

Privileges and limitations

1. May carry out local soaring only.
2. May carryout mutual flying, subject to the following conditions
 - (a) The other occupant of the glider also holds a minimum of a "B" Certificate.
 - (b) Each mutual flight is authorised by and carried out under the direct supervision of **the** Duty Instructor, who shall nominate the command pilot for the flight. **The** command pilot shall carry out the takeoff and landing.

"C" CERTIFICATE

Requirements

1. A total of 20 solo or mutual flights, including two solo soaring flights of at least one hour's duration each. Notes: (i) This means an overall total of 20 solos/mutuals, (ii) Only time in command of mutual flights can be counted towards this total).
2. Trained and checked in ability to carry out a safe outlanding.
3. Received a "passenger awareness" briefing, using the appropriate chapter in Part 2 of the Instructor's Handbook as a reference. (Note: The document "The Air Experience Instructor Rating" is being incorporated into the new Instructor Handbook).
4. Oral test on basic theory, basic navigation, basic meteorology, airways procedures, outlanding hazards, post-outlanding actions and SAR requirements.
5. Demonstrate satisfactory spin entry and recovery. This may be carried out dual or solo (observed from the ground) at the discretion of the supervising instructor.

Privileges and limitations

1. May fly cross-country at the discretion of the CFI or Instructor Panel.
2. May carry "family/friend" passengers (not for hire or reward and not Air Experience Flights) at the discretion of the CFI/Instructor Panel and under the direct supervision of the Duty Instructor.

Important note

The C Certificate provides the training and basic qualification for cross-country flying and the carriage of "family/friend" passenger. However, these privileges may only be exercised on any given day at the discretion of the Duty Instructor.

EXPLANATORY NOTES

These notes apply only to pilots who have qualified for the various certificates, have made the claims and who actually hold the "little green book", appropriately endorsed. Pilots who have not claimed the certificates will not benefit from the concessions granted to transfer the old certificates to the new ones, unless they ensure that the claims are made before the effective date of the new certificates.

Pilots who hold FAI Silver C or higher badge

Pilots who hold the above badges shall not be required to take any action. They retain their little green books and just keep on flying as usual. Note, however, that a pilot holding a Silver C or higher badge may, from 1st. July, 1992, carry family/friend passengers without the need for a separate rating and a club would not be expected to place undue obstacles in the way of a competent pilot wishing to do this.

Pilots who hold the old C certificate

These pilots will be required to exchange their old C certificate for a new one. Pilots are strongly urged to make this change as soon as possible after the effective date. Such pilots will not be required to meet any of the new training requirements in order to make the change. Note that this is a significant concession and pilots are expected to ensure that their knowledge is brought up to the level of the new C certificate as best they can.

Pilots who hold B certificates

The B certificates of these pilots will be recognised as they are, but these pilots will need to exchange their old certificate documents for the new ones. When they come to qualify for the C certificate, the new requirements for that certificate will apply.

Pilots who hold A certificates

The A certificates of these pilots will be recognised as they are, but again these pilots will be required to exchange their old certificates for new ones. When the time comes to claim a higher qualification, all the new requirements will apply.

The thrust of the above required actions is that pilots below Silver C will be required to obtain the new certificate as soon as possible after 1st. July, 1992. Pilots of Silver C and above just ignore the new A, B and C certificates and associated documentation.

Pilots who have not bothered to claim any certificates

Pilots in this category have until 1st. July, 1992 to get their certificates claimed. After that date, the new requirements will apply and these pilots will have to meet the standards set by the new requirements.

Further comments

There will be no requirement for a photograph with the new certificates.

Reciprocal rights may be granted to overseas pilots in each of the certificate categories, - subject to the discretion of the clubs instructor panel.

"A" CERTIFICATE ORAL EXAMINATION

BASIC THEORY

1. How is "safe speed near the ground" calculated? Nominate that speed for the glider you fly.
2. What is the secondary effect of rudder?
3. What happens to the stalling speed in a turn? Why does it happen?
4. Define aileron drag and explain (a) how the designer compensates for it and (b) how the pilot copes with it.
5. Of the forces acting on a glider in flight, which one is used to turn the glider?
6. On a glider fitted with an elevator trim tab, which way will the tab move if the trim lever is moved forward?
7. Airbrakes are used on final approach to control what?
8. If a wing drops at the stall, what is the correct action on the part of the pilot?
9. What is the correct recovery action from a fully developed spin?
10. Define wind-gradient and explain
 - (a) What is its effect on a glider and
 - (b) What action does the pilot take to compensate for it?
11. What usually happens to a glider's airspeed when it flies into a thermal?
12. Which is the higher figure, the speed for minimum sink or the speed for best glide angle? Nominate both figures for the glider you fly.
13. On a glider fitted with flaps, will downward deflection of the flaps improve the glide angle or make it worse?
14. What happens to the stalling speed when the airbrakes are opened?
15. What kind of stability does the glider have in the rolling plane?

FLIGHT RULES AND PROCEDURES

1. What are the requirements for Visual Meteorological Conditions (VMC) - (a) Below 10,000ft and (b) Above 10,000ft?
2. If the speed falls to just above 1.3Vs on a winch-launch and is still failing, what action is the pilot required to take?
3. Who gives way when two gliders are approaching each other (a) head-on (b) on converging headings?
4. Assuming that the glider is not taking off or landing, what is the minimum height to fly over a built-up area?
5. What actions would a pilot take in the event of glider release failure on aero tow?
6. What is the minimum vertical and horizontal separation between gliders in a thermal?
7. Who establishes the direction of circling in a thermal?
8. What action would the pilot take on running out of height in the circuit?
9. What is the "gliding in progress" signal, to be located near the windsock at an airfield?
10. On which side does a glider overtake another glider (a) when hill-soaring, (b) at all other times?
11. Who is entitled to give a "Stop" signal at a launch-point?
12. What action is required of a pilot before flying in controlled airspace?
13. At what stage is the airbrake or spoiler control used on final approach?
14. What is the pilot's first priority immediately following a launch failure?
15. What action does a pilot take before carrying out intentional stalling or spinning, or before acrobatics?

"B" CERTIFICATE ORAL EXAMINATION

BASIC THEORY

1. A glider wing always stalls at the same what?
2. What is lateral damping?
3. What kind of stability does a glider have in the yawing plane?
4. Define wing-loading.
5. What is meant by "laminar flow"?
6. What happens to the rate of descent in a turn?
7. What is meant by a "speed-limiting" airbrake?
8. Define aspect ratio.
9. What is the purpose of the short length of wool or string sometimes seen attached to glider canopies?
10. What effect do raindrops have on the wings of a high-performance glider? What action does the pilot take to compensate?
11. How does profile drag vary?
12. What causes pre-stall buffet?
13. What is the danger in banking too steeply near the ground in a strong wind?
14. What is a "stabilised approach"?
15. The longer a glider has been spinning, the longer it might take for recovery action to be effective. True or false?

FLIGHT RULES AND PROCEDURES

1. What is the "break-off point"?
2. What is the recommended minimum height to clear an obstacle on final approach?
3. Who is entitled to give a "take up slack" signal?
4. Who has priority, a glider taking off or a powered aircraft landing?
5. To whom must a gliding club report an accident?
6. Should you fly a glider if you donated blood the day before?
7. By what height above the ground must all stalling, spinning and aerobatics be completed?
8. What action do you take if you abandon a take-off, pull the release twice but know or suspect that the cable/towrope has become entangled in the wheel or skid?
9. What does a rudder-waggle on aero tow mean?
10. Above what altitude must oxygen be carried and used?
11. What action do you take if you have mishandled the landing flare and the glider is starting to gain height?
12. Assuming you had a choice (i.e. airfield procedures do not take precedence), on which side of the strip would you do a circuit in a strong crosswind?
13. Where should the pilot's left hand be during every takeoff. ,
14. Prior to every takeoff, what clearance must be obtained by the pilot?
15. When you join the circuit, you realise that you are too high and the angle to the strip is too steep. What action do you take?

BASIC AIRWORTHINESS

1. What aircraft document should be checked before flight and what information should be sought from it?
2. Where should the pilot look to find the glider's minimum and maximum weak-link strengths?
3. What action should the pilot take in the event of overstressing or overspeeding a glider in flight?
4. What is meant by "maneuvers speed (V_a)"?
5. If flutter is encountered in moderate to high-speed flight, (a) what immediate action should the pilot take, (b) what subsequent action after landing?
6. When checking a back-release, at approximately what downward angle should the cable automatically back-release?
7. What is " V_{ne} "? Is it the same at all altitudes?
8. A glider must never be pulled forward or backward by its wingtips. Why not?
9. Every glider has a maximum and minimum pilot weight. Where can this information be found?
10. Under what circumstances can a pilot lighter than the permissible minimum pilot weight fly the glider?
11. Why is a weak-link fitted to a cable or towrope?
12. What is meant by the "manoeuvre envelope"?
13. What kind of inspection must be carried out on a glider after it has been rigged?
14. What is a Form 2 Inspection?
15. From an airworthiness point of view when must aerobatics NOT be performed.

BASIC THEORY

1. Assuming adequate entry speed, how much G is capable of being produced in a 60 degree banked turn?
2. If a glider is not fitted with an elevator trim tab, how is trimming carried out?
3. What is "ground effect"?
4. What is autorotation and what causes it?
5. If you blow lightly into the total-energy venturi of a variometer system, which way would you expect the vario needle to move?
6. You are in a gentle turn with the bank slowly increasing and the stick coming steadily back at a constant nose attitude. What is likely to happen if the stick continues to come back?
7. What is meant by a "balanced" turn?
8. What effect does aspect ratio have on induced drag?
9. A glider is flying at 60kts IAS into a 20kt headwind with a reading of 2kts down on the variometer. The airfield is 10NM away. What height will you have on arrival at the field if you set off home at 4,000ft?
10. What is the optimum angle of bank for minimum height loss in a turn at 1.5 Vs.
11. Which is the best wing for the groundcrew to hold on a crosswind aero tow takeoff
12. What is the effect of water-ballast on (a) stalling speed, (b) climb performance and (c) glide angle?
13. Why are TWO rings fitted to the end of a launching rope or cable?
14. What is the dominant control in incipient spin recovery?
15. In a crosswind landing using the crab method of approach, are the controls crossed when the glider touches down?

FLIGHT RULES AND PROCEDURES

1. What is meant by the "non-manoeuvring area"?
2. Which way does the aiming-point move if the glider is overshooting?
3. When is a glider permitted to fly in the following areas: (a) Danger Area, (b) Restricted Area (c) Prohibited Area? On which chart will these areas be found?
4. What action must the glider pilot take if he loses sight of the tug during an aero tow?
5. At what height above ground must selection of an outlanding area be made on a cross-country flight?
6. What wind-indicators are available to assist a pilot on an outlanding?
7. What is the most common circuit-planning fault in early attempts at outlanding?
8. What are the five "S's" for choosing outlanding paddocks?
9. What are the minimum paddock standards for an acrotow retrieve from an outlanding?
10. What precautions are necessary when flying cross-country on days of total fire-ban?
11. What are the implications of landing out and failing to contact crew by radio or telephone by last light?
12. Name three basic precautions to take when giving an introductory flight to a relative or friend.
13. What extra equipment must a glider carry for operations in a Designated Remote Area?
14. What qualifications does a glider pilot need to communicate with Air Traffic Services?
15. What are the horizontal and vertical extents of an MTAF? What do the initials stand for?
16. Is it mandatory for a glider to carry and use radio in a CTAF? What do the initials stand for?

C CERTIFICATE ORAL EXAMINATION

BASIC SOARING METEOROLOGY

1. At what rate (in degrees Celsius per 1,000ft) does a thermal cool as it rises in clear air? What is the name given to this rate?
2. What is meant by "atmospheric stability"?
3. What is "water vapour"?
4. What is "dew point"?
5. If a thermal is capped by a cloud, what does the cloud consist of?
6. What happens to a thermal inside a convection cloud?
7. What is "coriolis force" and what is its effect on a wind blowing from high pressure to low pressure?
8. In which direction does the wind blow around an anticyclone?
9. A cyclone is an extreme form of ... what?
10. What is the effect of an increase in height on (a) air temperature, (b) air pressure, (c) air density.
11. Which is likely to generate the most hazardous weather for gliding, a warm front or a cold front?
12. In what kind of pressure pattern is subsidence likely?
13. What is the effect of subsidence on thermal development?
14. What is a "downburst" or "microburst"? Where are they likely to be found and what does a glider pilot do about them?
15. Are the conditions following the passage, of a cold front likely to be good or bad for soaring?

