



Hang Gliding Federation of Australia
www.hgfa.asn.au

**Powered Paragliding
Tandem Endorsement (Sports)
Training Syllabus**

V20150325

Endorsement Issue Requirements

Applicants must:

1. Hold a valid HGFA Powered Paraglider Pilot Certificate for the type of aircraft for which the endorsement is sought, including valid Cross Country endorsement.
2. Sign a statement indicating that he or she is medically fit to the equivalent standard required for the issue of a Private Motor Vehicle Licence within Australia;
3. Have attained the age of 18 years;
4. Have successfully passed theory and in-flight examinations in accordance with the requirements of this manual, thus demonstrating to an appropriate HGFA Chief Flight Instructor that he or she has reached the level of competency required for the issue of the endorsement; and
5. Forward to the HGFA Operations Manager a completed Passenger Carrying Endorsement application, which is signed and dated by the examining Chief Flight Instructor (Level 2) together with the appropriate fee. (See page 6)

Note: It is also recommended that an applicant for a Passenger Carrying Endorsement hold a current St Johns Advanced or Senior First Aid Certificate or equivalent.

This does not include commercial passenger carriage.

Commercial operations require a “Flight Experience Instructors Certificate”,

**The stipulated requirement for this being a minimum of 200 hours;
or 100 hours and 500 landings as pilot in command over a period of 12 months.**

See section 1.4.1

Aeronautical Experience

Foot Launched Applicants must have completed a **minimum** of 200 hours flying experience with a minimum of 200 flights as pilot in command in aircraft of the type for which the endorsement is sought and hold a valid PPG Cross Country endorsement.

Wheelbased launched applicants must have completed a **minimum** of 80 hours flying experience with a minimum of 150 flights as pilot in command in aircraft of the type for which the endorsement is sought, and hold a valid PPG Cross Country endorsement. (Aircraft not limited by weight.)

Training Program Theory Requirements

Prior to conducting passenger carrying flights, the endorsement applicant must gain a thorough understanding of the theoretical aspects of passenger carriage, including, but not limited to:

6. Two-place aircraft and associated equipment requirements;
7. Aircraft load limits and determination of these limits;
8. Aircraft maintenance requirements;
9. Tandem aircraft differences in performance and control: during launch, in-flight, at stall, and during landing - as compared to solo aircraft;
10. Actions required to counter each of these differences;
11. Considerations regarding passengers of varying weight, height and stature;
12. Suspension point and harness considerations;
13. Passenger briefing requirements;
14. Techniques to reduce passenger airsickness;
15. Specific landing approach requirements;
16. Additional allowances that may be required to counter: visibility limitations; operations in hot and humid weather; and operations at high altitude; and
17. Human factors and outside pressures that may affect a tandem pilot's judgement.

Training Program Practical Requirements

Wheelbased Operations

An applicant for the passenger carrying endorsement must gain an awareness of the tandem pilot's role by **first flying as a passenger to a CFI. A minimum of 3 flights** must be completed as a passenger to the CFI. During this flight the applicant can experience control differences and also gain an appreciation of flight from the passenger's position.

The applicant must then conduct **a minimum of three further flights with the CFI in the passenger position.** At least one of these flights should be conducted in nil wind conditions, and one in moderate wind to allow the pilot to demonstrate an ability to safely launch the glider in a variety of conditions.

Additional flights may be required at the request of the CFI. When the CFI is fully satisfied that the endorsement applicant can safely conduct passenger carrying flights in a variety of weather conditions and has grasped a full understanding of the theory aspects of passenger carriage, the endorsement application may be completed. Once all other requirements are fulfilled, including the Medical Examination, the Endorsement Application is to be completed and forwarded to the HGFA Office.

The first ten flights after the endorsement is issued must be conducted under the direct supervision of a HGFA CFI, or with a passenger who holds an HGFA Powered Paragliding Pilot Certificate.

Foot Launched Operations

An applicant for the passenger carrying endorsement must gain an awareness of the tandem pilot's role by **first flying as a passenger to a CFI. A minimum of 3 flights** must be completed as a passenger to the CFI. During this flight the applicant can experience control differences and also gain an appreciation of flight from the passenger's position.

The applicant must then conduct **a minimum of three further flights with the CFI in the passenger position.** At least one of these flights should be conducted in nil wind conditions, and one in moderate wind to allow the pilot to demonstrate an ability to safely launch the glider in a broad variety of conditions, utilising both forward and reverse canopy inflation techniques.

Additional flights may be required at the request of the CFI. When the CFI is fully satisfied that the endorsement applicant can safely conduct passenger carrying flights in a variety of weather conditions and has grasped a full understanding of the theory aspects of passenger carriage, the endorsement application may be completed. Once all other requirements are fulfilled, including the Medical Examination, the Endorsement Application is to be completed and forwarded to the HGFA Office.

The first ten flights after the endorsement is issued must be conducted under the direct supervision of a HGFA CFI, or with a passenger who holds an HGFA Powered Paragliding Pilot Certificate.

PASSENGER CARRYING ENDORSEMENT THEORY EXAMINATION

1. What are the design characteristics of a glider purpose built for passenger carrying operations? (3 Points)	
2. How are the following affected in tandem flights as compared to solo? a) launch b) stall speed c) landing (6 Points)	
3. What factors with regard to passenger weight need to be considered in passenger carrying operations? (2 Points)	
4. How do you determine the maximum safe wing loading for a tandem glider ? (2 points)	
5. Why is it important for the passenger to refrain from touching any part of the glider during launch procedures? (2 Points)	
6. What are the dangers of a low final approach to landing? (2 Points)	
7. Why is it considered dangerous to do use "S" turns as a height loss manoeuvre ? (2 Points)	
8. Apart from a Certified purpose built tandem glider, what additional safety equipment is required? (3 Points)	
9. What are the considerations with respect to the passenger support point on the glider (2 Points)	
10. What visibility limitations may be experienced in tandem flights ? (2 Points)	
11. List 6 points which must be covered in the pre-flight instructions for the tandem passenger ? (6 Points)	
12. Explain the effects of high altitude, hot temperatures and humidity on tandem launches and landings. (3 Points)	
13. Discuss the variety of potential problems associated with launch or landings involving passengers of varying heights, and weights. (2 Points)	
14. How would you determine the maintenance requirements for tandem instructional aircraft ? (2 Points)	
15. What factors should be considered when selecting a harness for your passengers ? (2 Points)	
16. How are the following affected whilst flying tandem as compared to solo? Sink rate, glide angle, stall recovery, overall controllability, turn radius, glider response and recovery times. (3 Points)	
17. List four ways to reduce passenger airsickness. (2 Points)	
18. What size emergency parachute is required for tandem operations ? (1 Point)	
19. What are the two most important things for a tandem pilot trainee to concentrate on during launch? (2 Points)	
20. What factors can affect a tandem pilot's judgment and performance? (1 Point)	
Maximum is 50 points - Applicant must score a minimum of 40/50 (80%)	SCORE:
INSTRUCTOR NAME: SIGNATURE: DATE:	