

OPMF30 - PARAGLIDER PASSENGER STUDY GUIDE

Objectives

To ensure the safe carriage of passenger and pilot, to promote safe flying skills and attitudes as specifically required for passenger flights.

Method

1. Through high skill entry level and a two-tier pilot rating system
2. Teaching skills which relate specifically to passenger flights.
3. Developing industry attitudes and pilot psyche through case history, continued education and dissemination of current approved techniques.

Tandem Techniques

1. The Weather

Pilots should limit their operations to low wind days and mild thermal days. Recommended maximum wind speed is 12 knots, thermal 1000ft/min. This is due to the lack of speed acceleration systems on current tandem wings and the probability of turbulence in landing areas.

2. The Site.

Pilots should carefully consider the take-off site with a view to being clear of obstacles in the abort area. With the very real possibility of a passenger sitting down or tripping over on take-off and the subsequent unplanned loss of control, avoid areas with fences, tree stumps, trees and the like ahead of take-off.

3. The Pre-flight Check.

As our passenger trusts us explicitly with their life, take maximum precautions and do a thorough preflight check, especially:

- a) all quick links and carabiners
- b) brake lines and their attachment to the handles
- c) the brake pulley
- d) your harness, your passenger's harness
- e) the stop attaching you and the passenger to the wing, no twists, right way up
- f) helmets on and all cameras, skis etc attached securely.

NOTE: In accordance with OPM Section 4 Operations - SAFETY OF HANG GLIDERS AND PARAGLIDERS commercial tandem paraglider flights must use a documented NZHGPA accepted procedure or system over and above the standard pre-flight check to ensure "clip-in".

4. Wing Loading

Due to different passenger size and weight your wing loading will vary from flight to flight.

Heavy people means higher stall speed, requiring a faster take-off and will result in faster landings, increased sink and higher flying speed. The wing will be under considerably higher strain during 360's and collapse recovery. It will have more drift in turns. Heavy people will also place much more strain on your body and legs during landings especially if you "take it" for them, so give maximum concentration on landings.

Lighter passengers means easy take-offs and landings, slow speed flight (watch the wind!). On exit from 360's or wingovers, the airflow may separate and definitely takes longer to re-establish itself possibly resulting in a steady state stall. In turbulent conditions be particularly careful to keep your speed up on landing, feeling through the brakes, watching the immediate environment for signs of turbulence, gusts on trees etc.

5. The Brief.

One of the most crucial matters to indoctrinate the passenger with is the absolute requirement for them to commit themselves to a strong take-off run.

It is a good idea to tell them that we need to be moving at over 15kms/h (i.e. a good run) to get airborne.

Keep calm in your voice during the brief, exude quiet confidence, however, be "firm" during the run to impart urgency during the take-off run, i.e. loudly say "run hard".

Describe the function of the harness to them, i.e. that they can't fall out!

A suitable technique is to prepare them mentally by talking and walking them through the inflation and run section. Some pilots tell the passenger to lean forward and run hard and keep running until they are lifted into the air.

6. Take Off

"OK a couple of deep breaths" (to focus them on the task ahead)

"Lean forward, lets go - run! run! run hard!"

Passengers will stop running, will fall over and maybe even try to run backwards, and it's often the passenger you thought would be most likely to go hard.

If this occurs in the first 2-5 metres you should stop and re-brief.

"OK we really need to commit ourselves for this take-off, trust me, look at the horizon and this time just a bit more effort, pull me down the slope. Lets go!"

However later in the run if this happens one has to just GO FOR IT!. Push them strongly down the hill. If the speed is nearly there, a touch of the brakes may achieve lift off.

If this doesn't happen, protect your passenger from any obstacles, put your leg/arms in front or twist yourself ahead. Their safety and well being come first!

7. The In-flight Brief.

Once airborne you can tell them everything is "OK" and instruct them to reposition themselves in the seat properly, knees up, hands onto the base of the seat and push the seat up towards their knees.

As you fly inform the passenger of your movements before or as you turn, this will show them you are in positive control.

Some people are really scared. Judge their feelings, telltale signs are white knuckles, no talking, rapid breathing, (screams are normal as are grunts etc). If they are really nervous, take it easy, they may only want a scenic flight.

Tell people to look ahead at the view (horizon) if they get vertigo or anxious.

8. The Landing Brief.

Here it is important that the passenger is standing up in the seat harness early. A sound idea is to have them standing up before you are on final glide, definitely above 65ft AGL. This enables you to concentrate fully on a smooth accurate landing.

"OK move to the front of your seat and be standing up just like take-off"

"As we land stand up tall, take the shock with your legs"

If the wind is light indicate they will have to run.

9. Landings

Regularly the passenger's legs will give way or appear to go to sleep on them. Try pushing them forward up onto their feet as you touch down. Definitely help them slide out the front of the seat prior to touch down.

Do watch your own confidence and general alertness levels.

As you may be flying the same circuit regularly it is possible you may try to give yourself more of a buzz by flying closer to things (other pilots, tree tops etc, turning tighter 360's etc). Think again. Safe considerate flying is required on every flight.. Take your single wing out for a hot flight but -

Don't jeopardize your passenger! Ever!

Through the day monitor yourself. Tiredness and complacency will catch up with you. Do stop to eat and drink, focus on each task and stop flying if you feel tired.

Conservative flying means:

- thorough preflight and brief
- careful planned take-off
- plenty of clearance
- a well planned set up and landing
- stopping before you get tired
- not flying in marginal conditions.

The essence of tandem flights is *Safe Fun Flying*.