APPI PPG Safety Advice

Important Statement: Paramotoring and Paragliding are as safe as you are! By sitting a comprehensive APPI PPG training course you will become a competent, knowledgeable and safe pilot. Throughout your training you will be made aware of the dangers and risks involved with these sports. It is therefore vitally important that you understand and take in the following information and keep this as a record once you have completed your training. It does not constitute a professional training course!

General Safety Advice

- 1. Always wear the appropriate protective clothing including a helmet, ankle supporting boots, gloves, long sleeve trousers and shirts.
- 2. Make sure that you are physically and medically capable of taking part in these types of activities. If in doubt consult your doctor before hand and notify your instructors and fellow pilots of any medical or physical ailments you may have.
- 3. Allow 10 hours between consuming alcohol and taking part in these activities. Never take any performance inhibiting drugs whilst partaking in these sports.
- 4. Your safety can be severely compromised by the type of equipment that you buy! Therefore always seek professional advice before purchasing equipment; especially off Ebay!
- 5. Never ever tow a Paraglider from a fixed object such as a car!
- 6. Do not fly in gusty, thermic, turbulent, stormy or windy conditions. Land immediately if you start to experience turbulence. Only fly in smooth, laminar conditions when the wind is no more than 10mph.
- 7. Weather permitting; the safest time to fly is either in the early morning or late afternoon/evening before and after the sun has created thermic conditions.
- 8. There are three rules for Taking Off and Landing: Take off and land into wind, take off and land into wind, take off and land into wind!
- 9. During take off and landing keep your landing gear down; never lift your legs up, never jump and don't stop running!
- 10.If in doubt about the weather, the site, the equipment, your ability or anything at all, do not fly! It is better to be on the ground wishing you were in the air rather than in the air wishing you were on the ground!

Ground Handling Safety Advice

- 1. You can never do enough ground handling! It is the only way to become a good and safe pilot. Therefore, whenever you have the opportunity, get outside and practise ground handling, both forward and reverse.
- 2. Always wear a helmet, ankle supporting boots and gloves. When clipping in go through the normal 6 point check as if you were going for a flight; leg straps x 2, chest strap, hang points x 2 and helmet.

Reverse Launch Technique

- 1. To set up for Reverse launch always use the techniques you have been taught. Turn the hang points 180° to the left and then clip in; the left hand riser should be on top with the D lines facing you. Use the buttons on the carabiners as a starting point; make sure that the buttons are facing in and then slide your hands down the D lines before gathering up the toggles.
- 2. The left hand toggle should come over the top of everything and the right underneath everything. Then cross over the risers at your body and gather up you're A lines in your left hand and your D lines in your right. Be sure to keep your maillons in line.
- 3. Build an even wall in to wind before committing to the launch; move round towards the high side if there is one. Remember to be smooth on the controls and keep your arms bent when applying brake no lower than your chest. If the wing moves to one side be sure to move with it and brake on the same side it is moving. When one hand is braking the other hand should not be applying any brake!
- 4. The aim is to keep the wing directly above your head and when it is settled turn your body 180° to the LEFT as if to take off. Be sure to turn 180° to the right when returning to face the wing. This allows you to be ready to gather up you're A and D lines as before and it is good to get in the habit of turning one way on take off and the other on landing.
- 5. If ground handling in strong conditions make sure you are in a large open area with plenty of room around you in the event of being dragged. Do not ground handle down wind of obstacles that create rotor and stay well away from wires, trees, buildings, vehicles etc.
- 6. Do not ground handle in winds more than 12 mph and if ground handling in winds between 8 -12mph be sure to have an anchor man and brief them not let go of you!

Forward Launch Technique

- 1. For forward launch be sure to lay the wing out perfectly into whatever wind there may be. Then clip in by putting the risers over your shoulders with the A lines facing forward. The risers should then sit in the crook of your arm and you should pull the toggles off under the risers and gather up the A lines. If you have split A risers gather up the inner A's only; this will make the wing easier to launch. Prior to committing to launch ensure that you are in the centre of the wing and directly in to wind.
- 2. During the launch keep your arms straight and let them go back behind you to allow the wing to come up evenly; keep moving forward and as you feel the resistance decrease let go of the A lines and, if necessary, apply both brakes to stop the wing from diving over the top of you.
- 3. Then keep running and moving forward. Try not to look at your wing too much. If it goes off in one direction move with it but apply brake on the opposite side. Never resist the wing and remember to apply brake with a bent arm but no lower than your chest.

- 4. To collapse the wing you can either put in a full flare which is a simultaneous pull and then a push on both brakes as low as they can go. Never do this higher than 2 meters above the ground when flying or being towed!
- 5. Alternatively you can turn right 180° to face the wing and use the C or D lines to deflate the canopy. This prevents you from sticking your hands into a moving propeller.
- 6. Remember that the lines will cause friction burns and the risers will bruise your arms during forward launch; therefore wear the appropriate clothing to prevent this.
- 7. Finally, practise, practise and practise some more!

General Pre Flight Safety Advice

- 1. Check in with NOTAMs at least 5 hours before flying and make them aware of your flight plan. It is your responsibility to check with NOTAMS and the Aeronautical Information Service for temporary restricted airspace. Always thoroughly plan cross country flights and fly with an up to date airmap.
- 2. Always carry out a thorough pre flight check on all of your equipment and yourself prior to each and every flight. Ensure that all nuts and bolts are secure and tight and that the wing is in good condition.
- 3. Always carry out a thorough Site Assessment in order to become accustomed with any obstacles, no fly zones, danger areas etc. If flying from a recognised site always make contact with the site manager or an experienced local pilot about the site's circuit patterns, take off and landing areas, no fly zones, danger areas etc.
- 4. In order to ensure the weather is suitable prior to flight, check the weather forecast and the synoptic charts. However, never fully rely upon weather forecasts; it is down to you to make a detailed and correct assessment of the weather conditions on site prior to flying. If in doubt do not fly!
- 5. 70% of accidents happen while starting the motor on the ground! Therefore, carry out the correct procedures when starting the motor on the ground; always make sure that the throttle operates cleanly and is not stuck on full power prior to starting it up! Do not wear any loose clothing when starting up the motor and point it away from any obstacles, people, buildings etc.
- 6. Find a suitable and safe area when starting up the engine and be sure to marshal the areas. Then brace the Paramotor correctly, clear the area and shout 'CLEAR PROP'. Do not run it up to full power immediately; idle it at first before gently building up the revs and making sure that it is operating correctly. Also be sure that you are using the correct fuel mixture and that it is no older than a month.
- 7. When clipping in for forward launch a good and safe technique is to lay the wing into wind and attach the motor to the wing before getting clipped in. This way you can insure that everything is attached correctly.
- 8. Runway behind you is useless in light winds; therefore be sure to use as much of the runway as possible in order to allow for a long take off run.

General Flying Safety Advice

- 1. During your take off run be sure to only commit to the power when the wing is straight above your head and directly into wind. Keep running and keep the power on as you do so. After the wing is close to take off speed a little bit of both brake no lower than your shoulders will assist with the actual take off.
- 2. Keep climbing into wind and find a smooth power delivery to insure a safe and correct climb out. Do not blip the throttle or jerk the brakes otherwise the wing will pitch or roll dramatically.
- 3. Only attempt to get in the seat once you have reached a safe height but be sure to do so over an open area. Gently back off the power to cruise speed and follow your left hand up to the brake pulley and place the toggle on the magnet before using your left hand to get into the seat. Only get into the seat whilst facing into wind and be careful not to kill the engine when doing so.
- 4. When turning be sure to look before you turn and use weight shift as well as brake. Never apply one brake lower than your chest in flight or on the ground and never apply both brakes lower than your shoulders until you come in to land.
- 5. Always stay at least 500ft away from any person, vessel, structure or object unless taking off or landing. Remember air law and do not break the rules! However, it is your responsibility to avoid an accident at all times so throw the rule book out the window if, by sticking to the rules, it will result in an accident.
- 6. Remember that height equals safety; if anything happens low to the ground you do not have the height/time to deal with it or throw your reserve.
- 7. Be smooth and progressive on the controls in order to avoid causing the wing to pitch, roll or yaw. In the event of seeing an obstacle in your path simply look away and turn away; do not get object fixation!
- 8. When flying away from the landing area head into wind, on your slowest leg, so your return leg is downwind and as fast as possible. This allows you to maximise your flight time and means you are not struggling into wind on your way back to your landing area.
- 9. Remember that the wind gradient means you will have less or more ground speed the higher you go, depending on whether you are flying in to or with the wind.
- 10.During the landing approach make sure you are directly into wind and kill the engine when you are safely over the back end of the landing area but no lower than 50ft.
- 11.If the wind is very low or if your brake lines are very long it is recommended that you take a wrap. This means that you wrap the brake lines once around your hands thus temporarily shortening them resulting in a stronger flare and slower landing. Be sure to practise taking a wrap up high as it can be difficult wrapping the line around the throttle hand.
- 12.Get out of the harness high so you are ready to land and to run if necessary. During the final glide do not jab the brakes, also known as bell ringing, otherwise you will create an oscillation. Instead set the wing on a

level glide and look ahead of you, not down at the ground. At around 5 metres apply both brakes to your ears to pressurise the wing and gently start to flare approximately 2 metres above the ground. Do not stagger your flare! It needs to be one fluid movement. You will then have completed a safe and correct landing.

Worst Case Scenarios

All worst case scenarios can be avoided by following the correct and safe procedures as previously explained. Do not carry out acrobatic manoeuvres on a Paramotor; especially spiral dives, whip stalls or any other advanced Paragliding acrobatic manoeuvre as they will cause the wing to react violently and potentially fatally. The following information should help you in the event of a worst case scenario.

Stalls, Tucks and Collapses

- 1. If you are flying in turbulent conditions you run the risk of having a wing malfunction. Most wing malfunctions can be rectified by putting your hands up and reducing the power.
- 2. The wing is designed to re inflate itself however if you are applying brakes then the wing may not be able to recover. Therefore, simply raise your hands up to the toggle pulleys, wherever they may be, and allow the wing to recover naturally. Never ever over react! Most accidents are caused by the pilot over reacting to a situation.
- 3. The main thing to focus on is course and correction. Make sure you are on a safe course before attempting to correct the wing.
- 4. If the wing tip has become stuck in the lines then you should gently weight shift on the opposite side, to maintain a safe course, and then attempt to rectify the problem by gently but firmly pumping on the corresponding toggle. This should free the fabric and the wing should resume normal flight.
- 5. If the wing has become crevated; i.e. a line has been looped over the wing, then you should still weight shift on the opposite side and attempt to find a loose line, known as the stabilising line, on the crevated side and give it a gentle but firm pull. This may need to be done several times however should free the line and the wing should resume level flight.
- 6. In the event of the wing not regaining level flight and entering an uncontrollable situation then you should deploy your reserve if you have enough height or adopt the parachute landing position and attempt to guide the wing in for an emergency landing.

Reserve Deployment

1. Firstly, always fly with a reserve, it is your back up system. You must ensure that the reserve is correctly fitted to your harness or Paramotor and that the locking pin is secured safely in the locking loop.

- 2. Go through your emergency procedures on the ground and make sure you know exactly what to do instinctively if you ever need to use one. The time to use your reserve is when the wing is in an unrecoverable position and has the potential to impact with the ground with immense speed or inertia.
- 3. Be sure to pull your inner bag directly out of the locking gates and then use the forward momentum to throw and release the reserve behind you on the same side as the bridle is fitted.
- 4. Once the reserve has deployed pull the now redundant main canopy in so it does not get tangled up in the reserve and then adopt the Parachute landing position. If you have not already done so make sure that the Paramotor is off!

Brake Handles Coming Off

- 1. In the event of the brake handles coming free from the lines you can continue to steer and semi stall the canopy using the rear risers.
- 2. You need to kill the engine to stop the propeller winding up the loose lines and then reach back to the D lines which can then be used, gently, to steer and semi stall the canopy on landing.
- 3. To avoid this from happening always carry out a thorough check of the wing and ensure that the toggles are securely fastened to the brake handles.

Brake Handles in the Propeller

- 1. In the event of the brake handles going into the propeller you need to kill the engine as soon as possible.
- 2. Steering can be done using the D lines as described previously. If the wing is out of control throw your reserve as soon as possible.
- 3. To avoid this incident from occurring never let go of your toggles when the brakes are under tension. Always follow them up to the toggle pulleys, reduce the power and, if possible, place them on the magnets. Always ensure you have a good safety net on the cage that does not allow a toggle to pass through it.

Spiral Dives

- 1. Do not do spiral dives or any other Paragliding acrobatic manoeuvre on a Paramotor!
- 2. If you ever do enter a spiral dive NEVER use the power and never apply too much brake.
- 3. By simply releasing the brake most wings will come out of the spiral however beginner wings, which are not designed for these manoeuvres, have been known to lock out in the spiral and not come out. In this case the only option is to throw the reserve.
- 4. A large amount of G force is generated in the spiral and can potentially cause the pilot to black out; therefore, do not do spiral dives!

Water Landings

- 1. Never ever fly a Paramotor low over water. If you ever do fly near or over water always fit an automatic inflation device.
- 2. If you ever do have a water landing be sure to undo your leg and chest straps prior to hitting the water. The instant your feet touch the water jump out of the harness and swim under and away from the Paramotor. To avoid being tangled in the lines do not fully flare the wing in order to allow it to fly over you; this will cause it land with the cells facing down creating an air pocket in the canopy which will stop it from sinking as quickly.

Conclusion

Paramotoring is effectively as safe as you are; it is not an extreme sport and should never be treated as one. If ever in doubt, do not fly!