

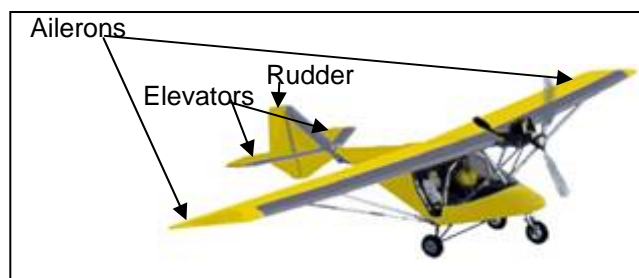
My first flight in a light aircraft....

Welcome to Kpong Field and Ultralight aviation! You have decided to take an air experience flight with us and we are thrilled to be able to introduce you to the world of aviation and flight. In order to help you better appreciate your first flight we would like you to take a few minutes reading this document and to ask any questions you might have prior to climbing aboard!

1. How does the plane fly? Airplanes fly due to the effects of the air moving over the wing. The wing is shaped in such a way that it makes the air travelling over the top of the wing travel faster than the air underneath the wing. This lowers the air pressure above the wing, creating **lift**, when there is enough lift to overcome the **weight** of the aircraft the airplane will lift off of the ground. In order to gain the forward speed the engine is used to power a propeller that throws air behind the plane creating **thrust**. Enough thrust must be created to overcome the resistance of the aircraft to the air which is called **drag**. These are the 4 forces of flight that allow us to fly!



2. How do you control the plane in flight? On the end of each wing is an **aileron** that moves up and down, which are controlled by the left to right movement of the joystick, allowing the pilot to control the **roll** (wings moving up and down in a rocking motion) of the aircraft. The tail of the aircraft has two moving surfaces, the horizontal surface that moves is called the **elevator** and is used to control **pitch** (nose up and nose down) movements via the joystick's backwards and forwards movements.



The vertical surface that moves is called a **rudder** and controls the **yaw** (pronounced as in YAW of Yawn) or side to side movement of the plane controlled by foot operated rudder pedals. By using these controls together in varying combinations the pilot is able to control the aircraft in climbs, turns, descents, level flight, etc. It is important that you do not interfere with the controls of the aircraft.

3. What controls the speed of the plane? The power output of the engine is controlled by the throttle command. As the pilot pushes the throttle forward more power is given by the engine as the revs increase. However, power is not the only factor in speed, but also the pitch (upward or downward angle) of the plane. For example, at 4,500rpm in straight and level flight the plane may fly with 100km/hr air speed. Without changing the power setting, if the nose is raised to climb slightly the aircraft would reduce its airspeed and if the nose is lowered the airspeed would increase. It is for this reason you will see and hear that more power is applied to climb and less is used to descend, in general. During your flight you will notice that the pilot adjusts the power settings for the different phases of flight.

4. What is the plane made of? For your first flight with us you will probably be flying in a tube and cloth aircraft. These aircraft are made from aluminium tubes covered with a special cloth that is very strong. You may see some all metal aircraft around the airfield and sometimes some composite (glass, plastic, carbon fibre, etc) machines may fly in. The key to aircraft design is to use strong and lightweight materials that are easily worked and repaired. Tube and cloth aircraft offer the lowest cost introduction to aviation and are easily built and maintained.

5. What should I do prior to my first flight? Make sure that all loose items are removed from your pockets and that you have no loose clothing or hair that may blow around in the cockpit. It is strongly advised that you take a visit to the toilet prior to your flight! You will be expected to wear a hi-vis jacket that must be worn all the time you are in the aircraft manoeuvring areas. If you want to take your camera, ensure that it is well secured with a strap to your wrist. If possible, watch other aircraft that are operating and imagine what it will be like for you!

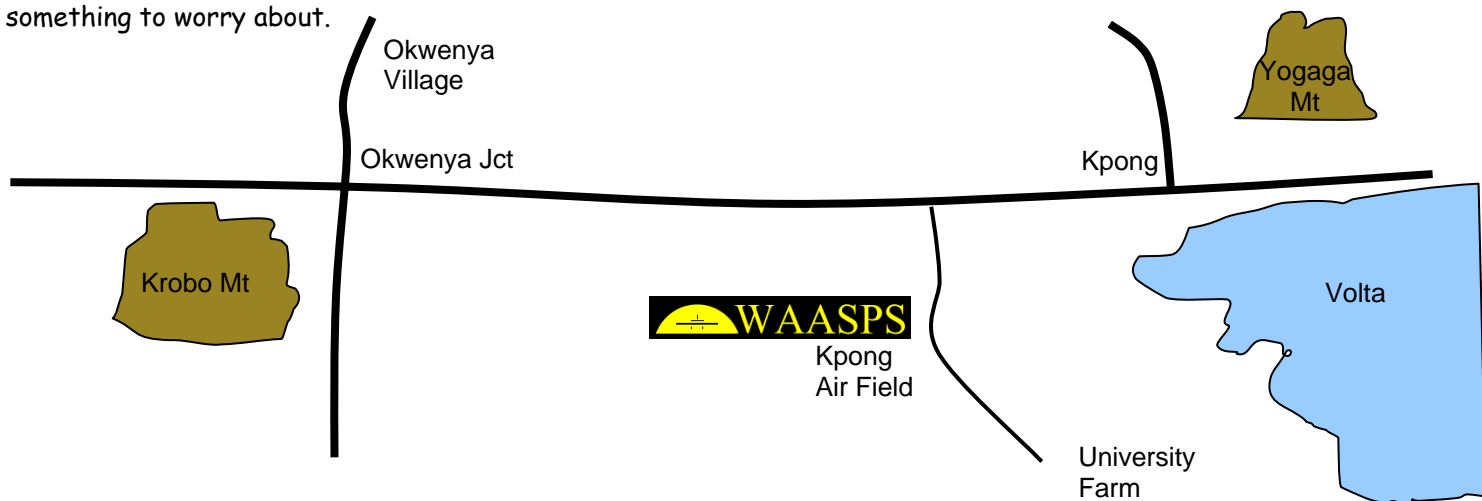
6. What should I expect on my first flight? You will be taken out to the aircraft and asked to climb into the seat with one leg each side of the joystick. You will be strapped in using a four point seatbelt and asked to wear a headset that allows you to hear the pilot and to speak to him/her through the intercom. You will need to speak quite loudly and close to the microphone to make the system work. You will be instructed to hold on to the shoulder straps of your seatbelt for take off and landing - this is a safety procedure. You will be asked to avoid blocking the movement of the joystick, rudder and throttle and shown the movements that they make during the flight.

The pilot will check you are strapped in and ask if you are ready for your flight. If you are, the pilot will start up the aircraft (at which point it will become quite noisy) and go through some safety checks. It may be necessary to wait for the engine to warm up before moving off. Everything will be explained to you, but if you are unsure you should feel free to ask questions. It is unlikely that you will remember or understand everything - this is a new experience and you should try to relax and enjoy it!

Do remember to keep your hands, head, legs, etc inside the cockpit at all times and not to touch any of the controls or switches.

Once the plane is ready and all the safety checks complete the pilot will taxi (move on the ground) the airplane to the runway. Once on the runway the pilot will check that you are ready to fly and then increase the power from the engine to make the aircraft go faster and faster along the ground. After a few seconds the nose wheel will lift off of the ground and then the main wheels. You will now be flying! The speeds you will be travelling at are similar to those of a car on the motorway. The aircraft will accelerate close to the ground for a short while before climbing upwards. As you climb the things on the ground will get smaller in appearance. After a few minutes the plane will turn, still climbing and then it will level off. You will be able to see Krobo Mountain, Yogaga, the Volta, Okwenya junction, University Farm, etc in the same way that the birds do. The cows, houses, roads and cars will all look much smaller than usual and you will see Ghana in a new and exciting way. If you are feeling comfortable and the weather conditions are favourable you may be asked if you would like to 'follow through' on the controls - if so - simply place your right hand on the stick and feel the movements that the pilot makes on the stick and how they affect the movement of the aircraft. When instructed you must remove your hand from the stick.

After a few more turns the aircraft will be positioned for the approach to landing. At this point the nose of the aircraft will point downwards and you will see the runway ahead in the distance. The pilot may adjust the flap and trim settings during this part of your flight. As the aircraft descends things will start to look bigger again and a feeling of change in speed may be felt as well as the air becoming warmer nearer the ground. The aircraft will be flown close to the ground and the engine power reduced in order to slow down enough to land. After a few seconds of floating just off of the ground you will feel the main wheels touch down and then the nose wheel descend to meet the ground. Under some conditions the pilot may choose to not land and to circle around again before landing (for example if he can see an animal or person on or near the runway). This is called 'going around' and is not something to worry about.



Above all we want you to enjoy your first air experience flight, and to come and see us again - whether to learn to fly with us or simply to enjoy the aviation environment that we are blessed with at Kpong Field!

You can book your next flight by calling 028 5075254 or 028 5018028 or e-mail info@waasps.com