

KEY GLIDING TERMS – DEFINITIONS FOR FOREIGN LANGUAGE STUDENTS

Introduction

From time to time, we fly student pilots whose first language is not English. While these student pilots often have an excellent command of conversational English, they occasionally struggle with more technical English and they may misunderstand the terms used by instructors.

All of the terms detailed below are likely to be referred to by an instructor in the very early stages of learning to fly and misunderstanding them may significantly delay a student pilot's progress. All terms have multiple meanings within the English language. The Definitions all begin with the most appropriate definition from the Oxford English Dictionary. Where appropriate, this is accompanied by a less technical description.

Flying Terms What we Mean

Pitch	<p>“A swaying or oscillation of a ship, aircraft, or vehicle around a horizontal axis perpendicular to the direction of motion”</p> <p>A change of the glider's <i>attitude</i>, where the nose moves down or up is called a change of pitch.. Forward and backward movement of the stick moves the <i>elevator</i> which produces a force which causes the glider to tilt nose-up or nose-down, control the slope of the glide and, therefore, the speed</p>
Yaw	<p>“Twisting or oscillation of a moving ship or aircraft about a vertical axis.”</p> <p>Movement, controlled by the <i>rudder</i>, around the vertical axis. The <i>rudder</i> Yaws the glider from side to side.</p>
Roll	<p>“A swaying or oscillation of a ship, aircraft, or vehicle round an axis parallel to the direction of motion.”</p> <p>Movement around the axis running from the front to the rear of the aircraft is called roll. It is controlled by sideways movement of the stick which, in turn, moves the <i>ailerons</i>.</p>
Bank	<p>“The sideways tilt of an aircraft when turning in flight”</p> <p>A glider is banked when one wing is lower than the other in relation to the horizon. <i>Roll</i> created the desired angle of bank or tilt angle.</p>
Attitude	<p>“The orientation of an aircraft or spacecraft, relative to the direction of travel”</p> <p>The relative position of the glider against the horizon. It can be nose up or nose down, or banked to the left or right.</p>
Circuit	<p>“A roughly circular line, route, or movement that starts and finishes at the same place”</p> <p>A planned flight path undertaken prior to landing, designed to ensure that the aircraft arrives at the correct height at the correct place to make a safe <i>approach</i> and landing.</p>
Approach	<p>“The part of an aircraft's flight in which it descends gradually towards an airfield or runway for landing”</p> <p>The final part of a flight and of the <i>circuit</i>, where the glider comes in to land.</p>

Stall “(of an aircraft) stop flying and begin to fall because the speed is too low or the angle of attack too large to maintain adequate lift.”

A condition where a glider's wing cannot produce enough lift, due to the angle of attack being too high.

Trim “The degree to which an aircraft can be maintained at a constant altitude without any control forces being present”

The Trim Lever can be used to adjust the stick forces at different speeds and *attitudes*, making speed control much easier.

Describing the Glider

Aileron “A hinged surface in the trailing edge of an aeroplane wing, used to control the roll of an aircraft about its longitudinal axis.”

Used to control the glider in *Roll*. Movement of the stick (the control column) left or right controls the ailerons, which in turn *roll* the glider

Elevator “A hinged flap on the tailplane of an aircraft, typically one of a pair, used to control the motion of the aircraft about its lateral axis.”

Used to control the glider in *Pitch*. Part of the tailplane, the elevator is controlled by forward and backwards movement of the control column, in turn setting the attitude of the glider.

Rudder “A vertical aerofoil pivoted from the tailplane of an aircraft, for controlling movement about the vertical axis”

Vertical control surface at the rear of the aircraft which controls movement around the *yaw* axis. Controlled by the foot pedals. By itself yaw swings the nose left or right.

Canopy “The transparent plastic or glass cover of an aircraft's cockpit”

Straps “A strip of leather, cloth, or other flexible material, used to fasten, secure, or carry something or to hold on to something”

The seatbelts that hold you in, fastened before and during flight.

Note that this is intended as a summary of some of the more important terms that are likely to be used by your instructor in the very early stages of your flying instruction. A more detailed set of questions and answers relating to gliding terminology can be found at <http://www.sky-web.org.uk/Gliding/home.htm>. This site is maintained separately by John Wright, www.sky-web.org.uk.