HILL AEROSPACE MUSEUM

HILL AIR FORCE BASE, UTAH

Aviation Vocabulary

AILERONS	The movable surfaces on the outermost trailing edge of an aircraft's wings that control roll around the longitudinal axis. They are tied to the control wheel, or stick, and move in opposite directions (when one deflects upward, the other deflects downward). An upwardly deflected aileron decreases lift on that wing and causes it to go down. A downwardly deflected aileron increases lift on that wing and causes it to rise up.
AIRCRAFT	Any structure that is intended for navigation through the air and that is supported either by its own buoyancy or by the dynamic action of the air against its surfaces. There are four general categories of aircraft: lighter-than-air, rotor craft, gliders, and airplanes.
AIRFOIL	A shaped structure that provides lifting force when air is forced over it.
AIRPLANE	A powered aircraft with wings and a tail. There are four classes of airplanes: single-engine land, single-engine water, multi-engine land, and multi-engine water.

BIPLANE	An aircraft with two sets of wings, usually one above the other.
BLIMP	A powered, lighter-than-air craft without a rigid framework, designed for controlled flight.
COCKPIT	The space in the forward fuselage of an aircraft for the pilot and crew to sit that has the instruments and controls for flying the aircraft.
DIRIGIBLE	A cigar-shaped, powered, lighter-than-air craft with rigid framework, capable of being navigated or steered.
ELEVATOR	The part of the horizontal stabilizer that moves up or down, thereby controlling the roll of the aircraft around the lateral axis. An upwardly deflected elevator decreases lift on the tail and causes it to go down, making the aircraft go up. A downwardly deflected elevator increases lift on the tail and causes it to rise up, making the aircraft go down.
FLAPS	Moveable surfaces on the inboard trailing edges of the wings of an aircraft that serve to increase lift at slower speeds, allowing the aircraft to take off and land safely.
GLIDER	An unpowered aircraft with wings and tail.
HORIZONTAL STABILIZER	Part of the tail of an aircraft that helps control its stability. The elevators are usually along the trailing edge of the horizontal stabilizer, unless the

	entire horizontal surface moves, in which case it is called a "stabilator."
JET ENGINE	A reaction engine that develops thrust by the rapid discharge of a gas. Jets depend on the surrounding atmosphere to support combustion and therefore can only operate in regions where an atmosphere exists. There are several types of jet engines: turbojet, turboprop, turbofan, ramjet, pulsejet, and scramjet.
LANDING GEAR	The fixed or retractable "legs" with wheels that an aircraft taxies, takes off, and lands upon. They may also have skis, skids, floats, or pontoons.
MONOPLANE	An aircraft that derives its lifting force from one horizontal, fixed wing.
PROPELLER	A rotating blade that is most commonly found on the front of an airplane engine that converts the power of an engine into the pushing (or pulling) force which moves the airplane forward.
ROCKET	A type of jet engine that carries all the materials needed for combustion onboard and does not depend on the atmosphere.
RUDDER	The moveable part of the vertical stabilizer that controls the yaw of the aircraft around the vertical axis. A deflection to the right causes the tail to move to the left and a deflection to the left causes the tail to move to the right.
SAILPLANE	A high-performance glider capable of remaining

aloft for extended periods on rising air currents.

VERTICAL STABILZER

The upright portion of the tail of an aircraft that helps control the stability of the aircraft. The rudder is usually attached to the trailing edge, unless the entire vertical stabilizer moves as a unit.

WINGS

The part of an airplane that provides the main lifting force and thereby supports the weight of the airplane in flight. The flaps and ailerons are along the trailing edges of the wings.