Glossary

AILERON : a hinged flap on a wing for controlling a banked turn. (Turning with one wing up and the other down.)

AIRCRAFT: any flying machine: an airplane, airship, glider, kite, or helicopter.

AIRFOIL: a body that has a special shape that converts moving air to lift (like an airplane wing).

AXES OF ROTATION: the three imaginary lines that pass through a kite's center of gravity at right angles to each other. All movements a kite makes can be can be defined in terms of these lines. (See PITCH, YAW, and ROLL).

BRIDLE: a bridle connects the flying line to the kite, at the TOW POINT, and sets the angle of the kite to the wind (called the ANGLE OF ATTACK). A bridle can have two or more LEGS. Some kites have a single tow point and no bridle.

CONTROL SURFACES : the parts of an airplane or glider that a pilot moves to control the flight (See AILERON, ELEVATOR, and RUDDER.)

DRAG: the total air resistance to the flight of an aircraft. The rougher the surface of an airfoil, the more drag; the more streamlined an airfoil, the less drag.

ELEVATOR: the flap on an airplane's tail that controls diving and climbing.

FACE: the front surface of a kite.

FRAME (BONES): the combination of a kite's struts and spine.

FUSELAGE : the main body of an airplane

GRAVITY (WEIGHT): the downward pull on an object.

LEADING EDGE: the forward edge of an airfoil as it moves forward.

LIFT: the upward force acting against a aircraft as the result of it deflecting the wind. The force of lift opposes the forces of drag and gravity.

NOSE (TOP): the top end of a kite.

PITCH : to rotate about the lateral axis; to tip up or down.

ROLL: to rotate about the longitudinal axis; to rock sideways.

RUDDER: A control surface on an airplane or glider's tail for turning left or right.

SAIL (SKIN): the kite covering.

SPINE: the back bone or central strut of a kite.

STABILITY: the ability to return to a normal flight path after being disturbed.

STALL: occurs when an aircraft loses forward speed and stops in the air.

STRUTS: the side and cross sticks that are used to give shape to the kite.

TAIL: something that attaches to the bottom of a kite to add stability by creating drag (NOT WEIGHT). Or, the back end of an airplane or glider.

THRUST: comes from an energy source (like wind). There has to be enough thrust to overcome gravity and drag for an aircraft to fly.

TOW POINT: where a kite's flying line connects to its BRIDLE.

TRAILING EDGE: the rear edge of an airfoil as it moves forward.

TRAIN: a series of kites flown on a common line or lines.

VENT: an opening for the passage of wind; aids stability.

WINDER (REEL): carries the flying line.

YAW: to rotate about the vertical axis; to turn to the right or left.