

BALLOONING VOCABULARY

Aerostat - A lighter than air craft, generally a balloon or airship; derives from being static in the air

Aeronaut – Another name for a balloon pilot

Airship - a type of aerostat (lighter-than-air) aircraft that can navigate through the air flying under its own power

Altimeter – An instrument used to measure altitude

Ammonia – A colorless pungent gas composed of nitrogen and hydrogen

Annonay – The city in France where the Montgolfier brothers designed, built and flew the first hot air balloon

Archimedes Principle – bodies immersed in water or air displace more than their own weight of air, causing them to float

Ballast – Anything heavy carried in an **aerostat** to control altitude. In gas balloons this is usually sand or water

Balloon Federation of America – A national association of balloonists and balloon enthusiasts

Balloon Mail – A special envelope carried in a balloon and then sent through the US mail as a souvenir of a balloon flight

Balloon Pin – special pins used by pilots to commemorate balloon rallies or as a souvenir of their balloon flights

Barnstorming - refers to the early 20th-century (and late 19th-century) practice of itinerant aeronauts traveling to rural areas to perform daring aerial exhibitions, balloon rides, and parachute jumps for public entertainment.

Barometer – An instrument used for measuring atmospheric pressure

Basket – the gondola or the part of the balloon where the pilot and passengers ride

Blast Valve – A control valve attached to the burner. When opened, it causes the burner to ignite.

Burner – A piece of equipment that burns propane gas in order to supply heat to the envelope.

Cables – the steel or Kevlar connections between a balloon envelope and the basket

Car – Another name for a **gondola**, used by early balloonists

Charles – Jacques J.C. Charles was a scientist who designed, built and flew the first **hydrogen** balloon on December 1, 1783

Charlière – Name given to any gas balloon

Coal Gas – Fuel used in the 19th century to heat homes. It was also used by early balloonist as a lifting gas for balloons

Continental Congress – The first Congress convened by the United States after the American Revolution

Crown – The top of the balloon envelope

Crown Line – A long rope attached to the center of the balloon crown on the outside of the envelope

Deflation – The process of removing the air from an inflated balloon at the conclusion of a flight

De Rozier – Pilâtre de Rozier was the pilot who flew the first manned hot air balloon on November 21, 1783

Dirigible - an airship, especially one with a rigid structure, capable of being directed, steered, or guided

English Channel – A body of water between England and France

Equilibrium – A state reached by a balloon when the weight of the air it displaces is exactly equal to its own weight

Envelope – Name given to the fabric part of a balloon

FR Finish – A fire retardant substance used to coat balloons to prevent fire

Fuel Tank – A large cylinder which holds the propane in the balloon basket

Gay-Lussac's Law – A law of physics discovered by Gay-Lussac and stating that “the volume of any gas bears a simple ratio to that of its constituents”

Gondola – The basket suspended under a balloon

Gordon Bennett Race – The most prestigious gas balloon race in the world

Gore – A section of the fabric sewn together to form a balloon envelope

Helium – A non-flammable, light, inert, colorless gas

Hydrogen – A flammable, colorless, odorless, gaseous chemical element, the lightest of all known substances. Discovery is attributed to the British chemist Henry Cavendish (1731-1810)

Hygrometer – Instrument used to measure relative humidity

Hypoxia – A condition resulting from a decrease in oxygen supplied to the body

Inflation – The process of filling a balloon with air and preparing it to launch

Load Tape – Vertical and horizontal strips of webbing sewn onto the envelope to give the balloon strength and maintain its shape

Magnetic Compass – Instrument used to measure geographical direction by the action of the earth's magnetic field on a bar magnet

Marquis d'Arlandes – co-pilot with **de Rozier** on the first manned hot air balloon flight

Montgolfier – Joseph and Etienne Montgolfier were brothers who invented the first hot air balloon in France in the 1780s

Montgolfière – name used in most European countries when referring to a hot air balloon

Montgolfier Gas – What the Montgolfier brothers called the “force” which made their balloon fly.

Netting – Cords or ropes which surround the outside of a gas balloon

Parachute – A large cloth shaped like an umbrella used to retard the speed of a body falling from the sky

Phlogiston – another name for **Montgolfier Gas**, technically, a form of burning

Pilot Light – Continuously burning flame used to light the burner

Porosity – the ability of a substance to allow air to pass through it

Propane – Flammable fuel used to fly a balloon, also called LP gas

Pyrometer – An instrument used to measure the temperature in the top of the balloon envelope

Red Line – A long rope attached to the crown of the balloon. When the pilot is ready to land he pulls on this rope to open the top of the balloon and allow the hot air to escape

Rip Line – Another name for the red line

Robert – **Nicolas-Louis Robert**, co-pilot with **Jacques Charles** on the first hydrogen balloon flight

Rozière – name given to combination gas and hot air balloons after the hydrogen/hot air balloon flown by Pilâtre de Rozier in 1784. This type of balloon was used in the Breitling Orbiter global flight.

Scoop Skirt – The fabric piece attached to the throat of the balloon which is shaped like a scoop

Side Vent – A slit in the side of a hot air balloon used to maneuver the balloon into a certain position

Skirt – A piece of fabric attached to the throat of the balloon which protects the flame from gusts of wind

Smoke Balloon – Balloons used by entertainers to pull a parachutist into the sky

Spring Top – A type of balloon crown or cap which is held in by small springs

Sulfuric Acid – An oily, colorless liquid used in making dyes, paint etc. It was mixed with iron filings to create a gas for use in balloons.

Throat – The bottom part of a balloon envelope

Uprights – rigid poles attached to the corners of the basket to mount the burner above the pilot's head

Vent – An opening in the crown or side of a balloon used to release hot air from the envelope

Vertical Velocity Indicator – An instrument used to tell the pilot how fast the balloon is ascending or descending

Victorian Age – Name given to the era when Victoria was Queen of England (1837 – 1901)

Wicker – A type of material used to make balloon basket, usually sourced from Indonesia