

Hot-Air Ballooning - The Oldest form of Manned Flight

Hot-Air balloons are beautiful and fun flying machines that can be seen all around the world. Hot-air balloons are also the oldest form of manned flight dating all the way back to 1783. That's more than 100 years before the first airplane was flown!

History

The first recorded instance of hot-air balloon capable of carrying humans was built by the brothers Josef and Etienne Montgolfier in Annonay, France in 1783. These two brothers were paper manufacturers who had seen the ash rising in the plant furnaces. On September 19th, 1783 the brothers successfully launched a balloon made from paper and cloth. The passengers were: a sheep, rooster and a duck. The balloon climbed to a height of 6,000 feet and traveled more than one mile.

Because of their success brothers decided that humans would be safe to fly. So, on the 21st of November, 1783. Pilatre de Rozier, a young physicist, and the Marquis Francois d'Arlandes, a nobleman, became the first recorded humans to fly.

The first hot air balloons were cloth and paper inflated by a fire. When they landed, farmers would think the balloon was a dragon, and would try to kill it. Since it was expensive to build these balloons these pilots began to carry Champaign with them. When they would land they would share the beverage with the locals as a peace offering, saving their balloon and making new friends. This tradition even survives to modern times and many balloon crews celebrate a first flights with champagne or sparkling grape juice.

Modern hot-air ballooning began in October of 1960 when engineer and pilot Ed Yost flew the first hot air balloon with a controlled heat source. Until then safe controlled balloons had been limited to gas, which was hard to find and expensive, since the practice of flying Montgolfier-style balloons was dangerous and unpredictable. Modern balloons are safe, functional FAA certified aircraft. There are about 5,000 pilots in the U.S. alone, and the sport of ballooning has become an enthusiast hobby around the world.



How Balloons Work

Hot air balloons fly because hot air is 'lighter' than colder air and rises. Balloons artificially heat air inside the envelope with a propane **burner** to create hot air inside.

To the right is a diagram of a hot-air balloon showing its different parts.

The **Envelope** is the colorful bag of fabric that makes up most of the balloon.

Load tapes take the pressure of the load and keep the fabric from pulling apart.

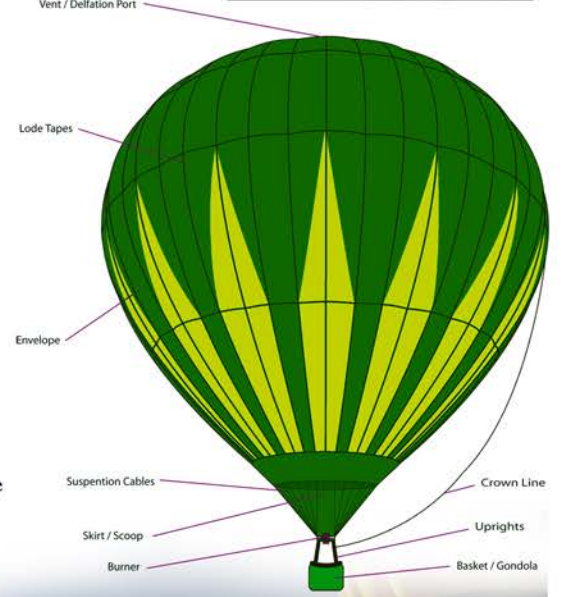
The **vent** at the top of the balloon allows hot air to be vented out of the envelope so the pilot can descend faster or deflate the balloon.

The **basket** carries passengers; propane fuel and the burner to heat the air.

The **crown line** allows the balloon to be kept steady while on the ground.

Uprights hold the burner up and keep it from hitting the pilot in the head during hard landings.

The **skirt** protects the burner's flame and keeps it from being put out by wind.



The Alabama Jubilee Hot-Air Balloon Classic - held every year on Memorial Day weekend in May for the last 34 years in Decatur, Alabama

A promotional banner for the Alabama Jubilee Hot-Air Balloon Classic. It features a logo for the event, text stating "This brochure provided by The Heart of Dixie Balloon Club, and The Alabama Jubilee", and a website URL "www.alabamajubilee.net". There is also a logo for "HEART OF DIXIE BALLOON CLUB" in the bottom right corner.