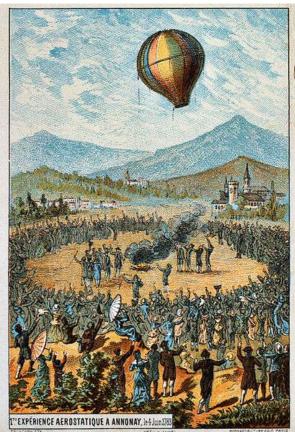
# Hot Air Balloons and the Montgolfier Brothers

The Montgolfier brothers, born in Annonay, France, were the inventors of the first practical balloon. The first demonstrated flight of a hot air balloon took place on June 4, 1783, in Annonay, France.



Joseph and Étienne Montgolfier



Joseph and Étienne Montgolfier, paper mill owners, were trying to float bags made of paper and fabric. When the brothers held a flame near the opening at the bottom, the bag (called a balon) expanded with hot air and floated upward. The Montgolfier brothers built a larger paper-lined silk balloon and flew it in a public demonstration on June 4, 1783, in the marketplace at Annonay. Their 28,000 ft<sup>3</sup> (790 m<sup>3</sup>) balloon (called a Montgolfiere) flew 1.2 miles (2 km) at an altitude of 5,200 to 6,000 feet( 1,600 to 2,000 meters).

### **Montgolfiere Balloon**

June 4, 1783 Montgolfier Balloon flight

#### **First Passengers**

On September 19, 1783, in Versailles, a Montgolfiere hot air balloon carrying a sheep, a rooster, and a duck flew for eight minutes in front of Louis XVI, Marie Antoinette, and the French court.

## **First Manned Flight**

On October 15, 1783, Pilatre de Rozier and Marquis d'Arlandes were the first human passengers on a Montgolfiere balloon. The balloon was in free flight, meaning it was not tethered.



The first manned hot air balloon flight – October 15, 1783

On January 19, 1784, a huge Montgolfiere hot air balloon carried seven passengers to a height of 3,000 feet over the city of Lyons.

## **Montgolfier Gas**

At the time, the Montgolfiers believed they had discovered a new gas (they called Montgolfier gas) that was lighter than air and caused the inflated balloons to rise. In fact, the gas was merely air, which became more buoyant as it was heated.