

Selected slides on origin of hot air ballooning

- Have you ridden in a hot air balloon?
- Have you seen the movie *The Aeronauts*?

First human flight

- The first untethered hot air balloon flight was performed by Jean-François Pilâtre de Rozier and Marquis François Laurent d'Arlandes on November 21, 1783, in Paris, France, in a balloon created by the Montgolfier brothers.
- The first hot-air balloon flown in the Americas was launched from the Walnut Street Jail in Philadelphia on January 9, 1793 by the French aeronaut Jean Pierre Blanchard.

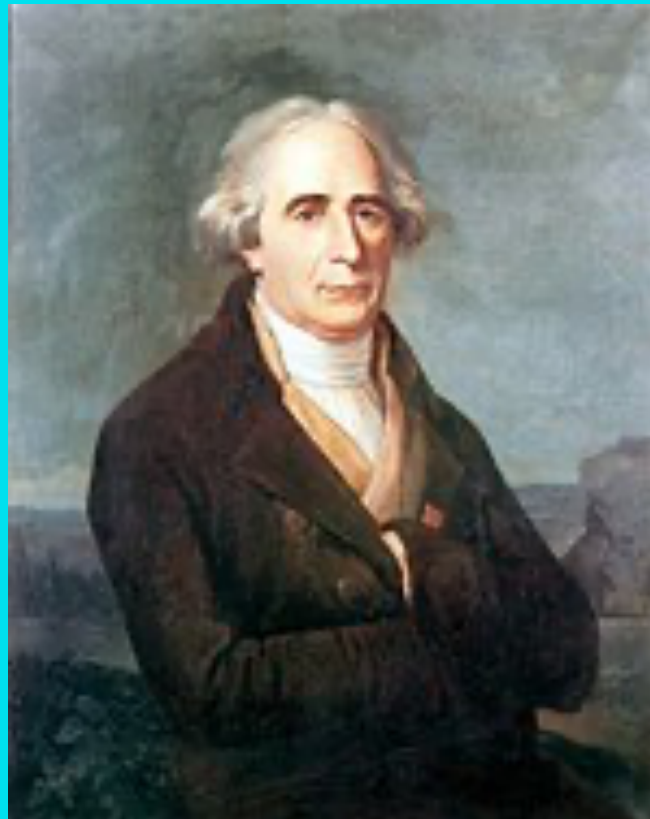


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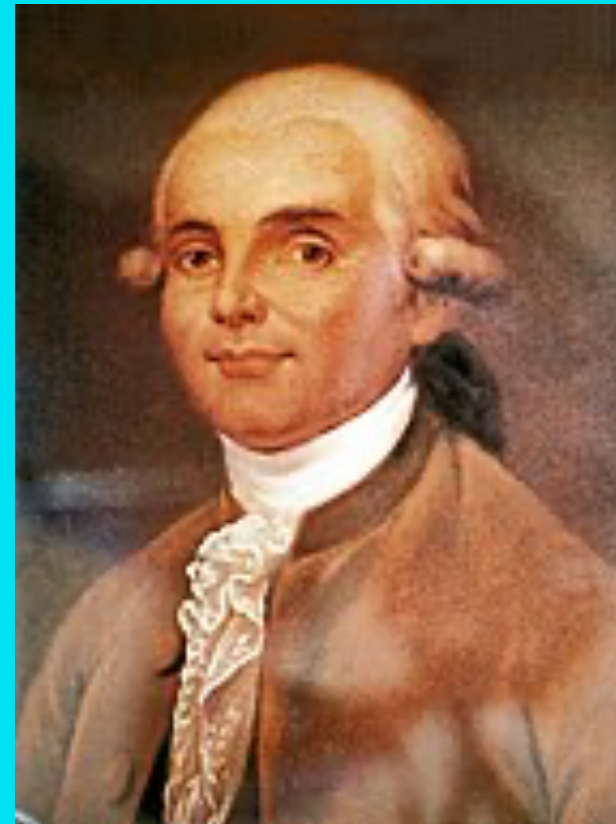


Montgolfier Brothers, inventors

Paper manufacturers; 12th and 15th of 16 children



Joseph-Michel



Jacques-Étienne

The creative brother, Joseph

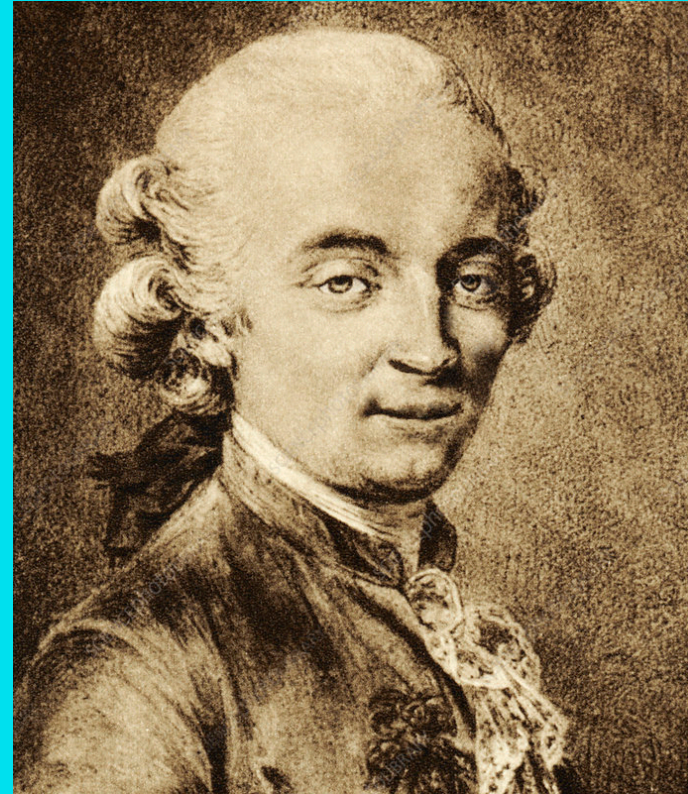
- Contemplating attacking the fortress in Gibraltar.
 - By sea or land – impossible
 - Maybe by air
- He watched the embers rise from a fire.
 - Made a light-weight box, built a smoky fire and put the box over it. The box quickly rose to the ceiling.
 - He thought the levitating force was supplied by the smoke (Montgolfier levitating gas).

The marketing brother: Etienne

- The first flight demonstration was performed at Versailles, before King Louis XVI of France and Queen Marie Antoinette.
 - King suggested flying two criminals
 - Etienne selected a sheep, a duck and a rooster.
 - September 19, **1783** a demonstration hot air balloon called 'Aerostat Reveillon'
- The sheep, named Montauciel ("Climb-to-the-sky"), was believed to have a reasonable approximation of human physiology. The duck and rooster were included as controls familiar with flight.

A French aeronaut

- Jean-François Pilâtre De Rozier

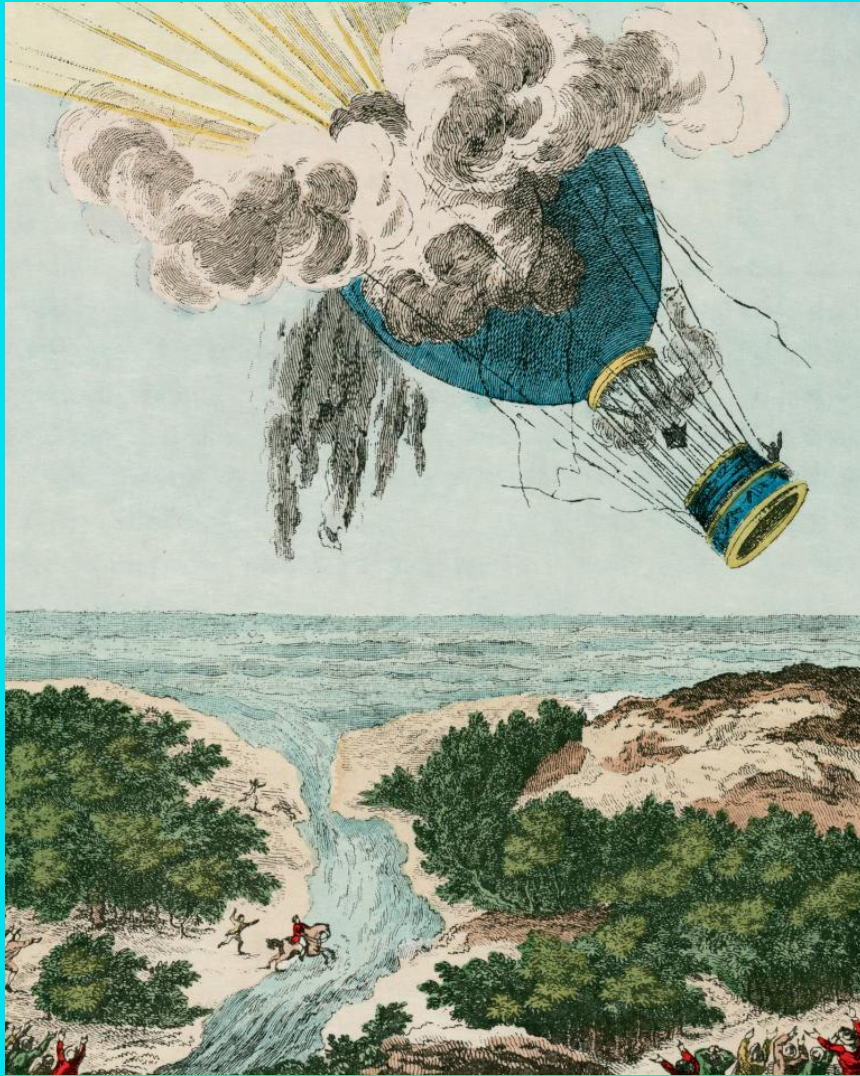


November 21, **1783**, Etienne Montgolfier
built a balloon large enough for 2 men; launched in Paris

Jean-François Pilâtre de Rozier and
an army officer Marquis d'Arlandes.

It landed after a 6-mile, 25-minute, flight. The end involved
having to put out the fire that had started in the gondola material.

They were still not sure of what gas was lifting their balloons



De Rozier died in **1785** trying to cross the English channel in a balloon filled with a combination of hydrogen and air.

N.B. Oxygen had just been discovered by Joseph Priestly in 1772, and its oxidation properties were not widely known and understood.

Jean-Pierre Blanchard

Became famous for his balloon flight demonstrations and his antics. Joined by his wife in performances.

English channel 7 January **1785**

First flight in the USA from Philadelphia, 9 January **1793**.

Had heart attack and fell from a balloon 20 February 1808 and died 7 March 1809 from the injuries.



Marie Madeleine-Sophie Armant Blanchard

- Sophie Blanchard

Sophie Armant born 1778

Married Jean-Pierre Blanchard in 1804.

After his fall in 1808, Sophie continued his legacy and made a name for herself as a professional balloonist. She died when her balloon caught fire.



Records

- Highest **balloon flight**. The highest man has flown in a **hot air balloon** is 68,986 feet
 - Dr. Vijaypat Singhania
 - Mumbai in India in November 2005.
- Oct 24, 2014 highest helium balloon:
- Alan Eustace, 135,906 ft
- senior vp at the Google corporation
- returned to earth via parachute
- 26 miles; 4 min, 27 s; 822 mph

