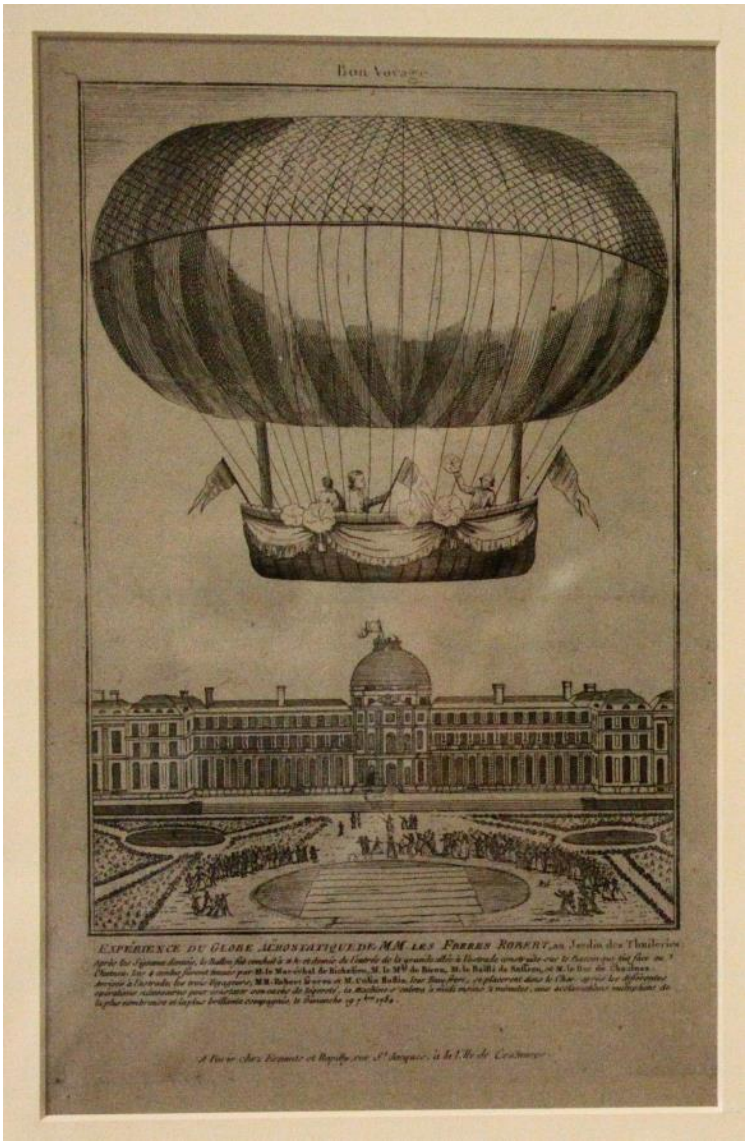
**FÉDÉRATION AÉRONAUTIQUE INTERNATIONALE**
**Ballooning Commission**

**Hall of Fame**

# ROBERT BROTHERS, FRANCE
## Inducted 2000

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**Anne-Jean Robert, (aîné, the elder). 1758-1820.**
**Marie-Noël Robert, (cadet, the younger). 1760-1820.**

The Robert brothers were skilled mechanical constructors. They helped professor Jacques Alexandre César Charles build the first usable hydrogen balloons. Charles knew about the work of Cavendish, Black and Cavallo, and realised that hydrogen would make a suitable lifting agent. The problem was to find a airtight and light gas container. The brothers had found a method to dissolve rubber in turpentine. This mixture was used to varnish the silk used to construct the envelopes of the balloons (The silk was red and white but when rubberised, the white parts changed to light yellow).

August 27, 1783 Professor Charles and the Robert brothers publicly demonstrated a 35 m3 hydrogen balloon - a rubberised silk sphere. This was the first free flight by a gas balloon. The balloon was launched from Champ de Mars, Paris. It quickly rose to high altitude and landed in Gonesse (15 km NE Paris) where scared villagers attacked the "monster from space".

December 1st, 1783. The younger brother, Marie-Noël Robert, accompanied professor Charles on the first human flight in a gas balloon. The "charlière" contained 380 m3 hydrogen and was launched from "Le jardin des Tuileries" in Paris at 13.45. They landed in Nesle-La-Vallée after a 2 hour 5 minute flight covering 36 km.

July 15th, 1784. Both brothers together with Collin-Hullin and the Duke of Chartres made a flight in an elongated balloon, "La Caroline", with an internal ballonet. They tried to control direction with oars. No valve was fitted. The duke had to slash the ballonet to prevent rupture. The flight lasted 45 minutes. The balloon may have reached 4,500 meters altitude. After take-off in St. Cloud they landed in Meudon.

September 19th, 1784 the brothers together with Collin-Hullin made another flight in an elongated hydrogen balloon. This time they tried to control direction with parasols. The flight lasted 6 hours 40 minutes and was the first flight over 100 km (186 km in a straight line) from Paris to Beuvry near Bethune.

The balloons constructed for prof. Charles had all the attributes still found today in modern gas balloons. The envelope was covered with a net from which the car was suspended, the envelope had a valve fitted and the balloon carried ballast in the form of sand to control altitude.