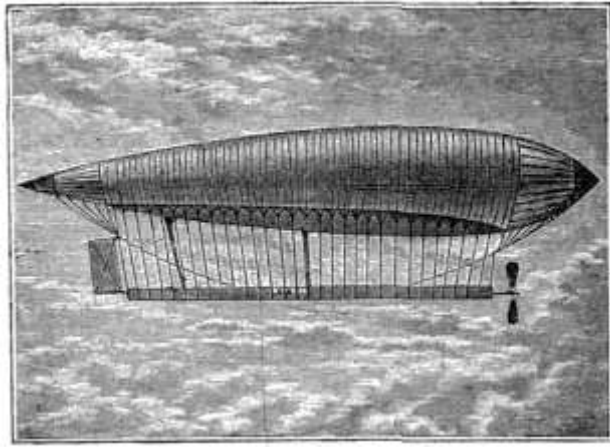


## First Fully Controlled Flight of an Airship



In 1884, Charles Renard and Arthur C. Krebs, inventors and military officers in the French Army Corps of Engineers, built an elongated balloon, *La France*, which was a vast improvement over earlier models. *La France* was the first airship that could return to its starting point in a light wind. It was 165 feet (50.3 meters) long, its maximum diameter was 27 feet (8.2 meters), and it had a capacity of 66,000 cubic feet (1,869 cubic meters). Like the Tissandiers' airship, an electric, battery-powered motor propelled *La France*, but this one produced 7.5 horsepower (5.6 kilowatts). This motor was later replaced with one that produced 8.5 horsepower (6.3 kilowatts).

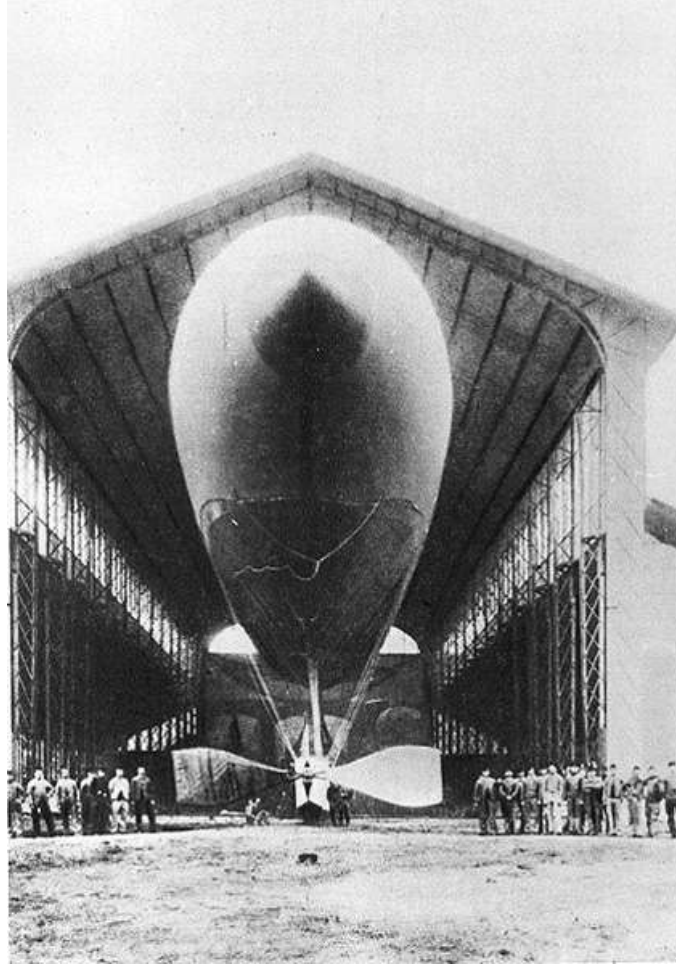


*Arthur Krebs*



*Charles Renard*

A long and slender car consisting of a silk-covered bamboo framework lined with canvas hung below the balloon. The car, which was 108 feet long (33 meters), 4.5 feet (1.4 meters) wide, and 6 feet (1.8 meters) deep, housed the lightweight batteries and the motor. The motor drove a four-bladed wooden [tractor propeller](#) that was 23 feet (7 meters) in diameter but which could be inclined upwards when landing to avoid damage to the blades. Renard also provided a rudder and elevator, ballonets, a sliding weight to compensate for any shift in the center of gravity, and a heavy guide rope to assist in landing.

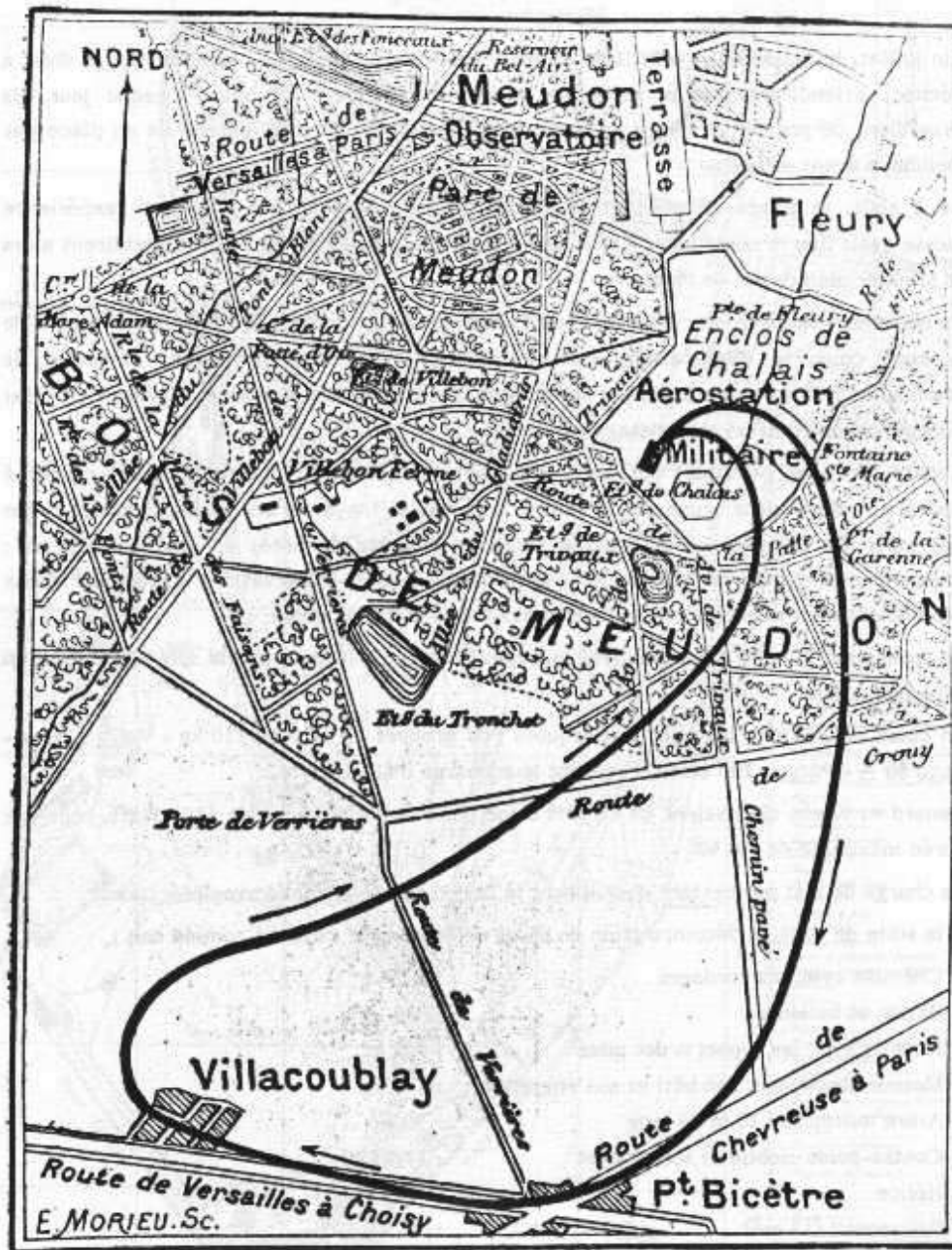


*La France airship - 1885 photograph.  
2001 National Air and Space Museum, Smithsonian Institution*

The first flight of *La France* took place on August 9, 1884. Renard and Krebs landed successfully at the parade ground where they had begun—a flight of only 5 miles (8 kilometers) and 23 minutes but one where they had been in control throughout. During 1884 and 1885, *La France* made seven flights. Although her batteries limited her flying range, she demonstrated that controlled flight was possible if the airship had a sufficiently powerful lightweight motor.

Source: *U.S. Centennial Of Flight Commission*

Below is a period map showing the flight path.



LE PREMIER VOL DE "LA FRANCE" .

9 AOUT 1884 .