

#### 4) HEAVIER THAN AIR - PIONEER ERA

This period saw the development of practical aeroplanes and airships and their early application.

##### 4.1) ORVILLE & WILBUR WRIGHT - THE FIRST AIRCRAFT (1903)

Orville and Wilbur Wright were very deliberate in their quest for flight. They spent three years testing and learning about how gliders could be controlled at Kitty Hawk, North Carolina. They designed and used a wind tunnel to test the shapes of the wings and the tails of the gliders. In 1902 with a perfected glider shape they turned their attention to how to create a propulsion system that would create the thrust needed to fly.

Orville & Wilbur Wright and Flyer I which lifted off from level ground on 17 December 1903.

Orville piloted the plane.

The first heavier-than-air flight travelled 120 feet in 12 seconds.



The 4-cylinder engine weighed 180 pounds and developed 12 horsepower at 1025 rpm. The Wright brothers took turns flying with the fourth and last flight covering 850 feet in 59 seconds.

On 5 October 1905 after perfecting their design Wilbur piloted the Flyer III for 39 minutes and 24 miles of circles.



Lesotho - Plate block with 'traffic lights' colour registration markings

##### 4.2) ALBERTO SANTOS-DUMONT (1906)



On 13 September 1906 Brazilian Alberto Santos-Dumont made a flight in Paris with the 14-bis, also known as 'Oiseau de proie' and covered a distance of 200 feet on the grounds of the Chateau de Bagatelle in Paris. This was the first flight of a powered heavier-than-air machine in Europe.

##### 4.3) LOUIS BLERIOT (1909)



On 25 July 1909 Louis Blériot won a £1,000 prize offered by the British Daily Mail newspaper for a flight across the English Channel.