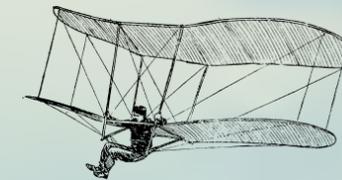




SINGAPORE TAKES FLIGHT

A HUNDRED YEARS OF AVIATION



Aviation history was made on 16 March 1911. On this day, the first aircraft took flight in Singapore, when a Bristol Boxkite biplane piloted by

Joseph Christiaens rose into the air from the old Race Course at Farrer Park. It was a flight demonstration at the first aviation meet held in Singapore. To mark the centenary of this historic occasion, the Singapore Philatelic Museum has opened a new exhibition titled **SINGAPORE TAKES FLIGHT: A HUNDRED YEARS**. Running from 11 March till September 2011, this exhibition celebrates the milestone event with picture postcards, postage stamps and first day covers alongside a private collection of model aircraft on loan from Mr Ralph Aeria. An award-winning philatelic collection, Malayan Airmail 1911-1942, from Mr Lim Sa Bee will also be displayed from end March to June 2011.

By Lucille Yap

THE PLANE AND THE PILOT

The Bristol Boxkite was a modified version of the Henri Farman biplane, a famous and widely used model produced in France and first flown in 1909. Seating two, the Boxkite was developed by the British and Colonial Aeroplane Company, a Bristol-based company that was later renamed the Bristol Aeroplane Company.

The first Boxkite flew on 29 July 1910. It was put into production, in significant numbers for the time, at Britain's first aircraft factory in Filton, Bristol. A highly successful aircraft, the Boxkite soon drew the attention of the British War Office which placed an order for four aircraft. This was followed by orders from the Australian Army, India and Russia. The Boxkite was used extensively as an elementary training aircraft.

In 1964, three Boxkite replicas were built with modern engines by F.G. Miles Engineering Ltd for the Twentieth Century Fox film *Those Magnificent Men and their Flying Machines*, which was very successful at the box office. Today, an Australian project team, known as Project 2014, is reconstructing the Boxkite to commemorate the centenary of the first military flight in Australia on 1 March 2014.

The pilot of Singapore's virgin flight, Joseph Christiaens, was an engineer, race car driver and aviator born to a well-to-do family near Brussels in Belgium in 1879. In March 1910, Christiaens learned to fly in a Henri Farman airplane and in the following month, was registered with Belgian Pilot License #7, becoming one of the first 11 aviators registered at the Aero Club of Belgium. Thereafter, he took part in a number of aviation meetings racing



Henri Farman's plane in Europe in 1910.

In 1911, Joseph Christiaens, with his brother Arnaud, made a tour of the East Indies, taking with him two Bristol Boxkite biplanes. An avid car racer, he died on 25 February 1919 in a road accident while testing a racing car in England. His speeding car crashed into a wall while trying to avoid a horse-cart emerging out of a side road.

FROM RACE COURSE TO INTERNATIONAL AVIATION ROUTE

Built in 1842 by members of the Singapore Sporting Club, the old Race Course at Farrer Park served as a sports and recreational hub for European residents. Although the race course moved to new premises in Bukit

Timah in 1933, the road name "Race Course Road" continues to serve as a reminder of its early equestrian heritage.

Eight years after Christiaens' historic flight in his Boxkite, the Race Course saw action once more when a Vickers Vimy G-EAOU piloted by Captain Ross Smith landed for a stopover on 3 December 1919. Captain Ross had flown 22 days and 13,900 km from England and was en route to Darwin, Northern Australia. He completed his 135-hour journey on 10 December 1919.

The beginning of 1930s saw the rapid expansion of air routes connecting Europe to the Far East. The Dutch airline, KLM (the Dutch abbreviation of *Koninklijke Luchtvaart Maatschappij* or Royal Dutch

Airlines), placed Alor Star, Singapore and Penang on the international aviation route map in 1931, 1933 and 1936 respectively. Singapore's first direct link with Europe was established on 3 May 1933 when a KLM Fokker F-18 put the island on the trunk route between Amsterdam and Batavia (now Jakarta).

At the end of 1934, Imperial Airways, the first British commercial long-range air transport company, established its England-Australia link with Singapore as a key stopover point. Qantas Empire Airways took over the Singapore-Australia sector in 1935.

After the Second World War, jetliners with greater speed and capacity replaced propeller-driven aircraft. The first jet to ar-

rive in Singapore was a British Overseas Airways Corporation (BOAC) Comet in 1951. Produced by de Havilland, a British aviation company, the Comet was the world's first commercial jet airliner with a sleek aerodynamic body, pressurised cabin and seating up to 36 passengers. Unfortunately, the plane was unable to land at Kallang Airport due to runway limitations and so landed at the Changi Royal Air Force airfield instead. Airmail was delivered to Singapore for the first time by jet plane in 1951.

FROM CIVIL AERODROME TO CHANGI INTERNATIONAL AIRPORT

From 1928, small land aircraft and seaplanes were handled at the military airbase of the Royal Air Force at Seletar. Growth in air traffic in the early 1930s, however, prompted the call for a new civilian airport facility. Then Governor of the Straits Settlements Sir Cecil Clementi expressed on 31 August 1931 his opinion in words that would prove prophetic in

the later decades of the century:

"It is a not a question of which aerodrome in Singapore Island would be the cheapest but which aerodrome in Singapore Island would be the best. Looking into the future, I expect to see Singapore become one of the largest and most important airports of the world... It is, therefore, essential that we should have here, close to the heart of town, an aerodrome which is equally suitable for land planes and for sea planes; and the best site, beyond all question, is the Kallang Basin."

Work on this massive reclamation task began in 1932. Kallang Airport was officially opened by the Governor of the Straits Settlements, Sir Thomas Shenton, on 12 June 1937. It was praised as the finest airport in the British Empire.

Regional aviation continue to expand, with the launch of the first internal air service in Malaya, Wearne's Air Service, on 28 June 1937, which flew three times a

Top row: Some early postcards of the Race Course at Farrer Park. The first postcard shows Captain Ross Smith after he landed in Singapore.

Lower row (from left to right): Qantas Flight Cover commemorating the coronation of Queen Elizabeth II, 3 June 1953.

KLM First Flight Cover from Singapore to Batavia, Indonesia, 1933.

Imperial Airways Experimental Flight Cover from Singapore to Darwin, Australia, 1 April 1931.

Imperial Airways First Flight Cover from London, UK to Singapore, 1933.

BOAC Comet Jetliner First Flight Cover from Singapore to London, UK, 1959.

Top right: Stamps commemorating the first Vickers Vimy flight from England to Australia and the first trans-Atlantic flight.

It glided the Vimy down at as low a speed as possible, and just before we touched the ground.... The next day, December 4, was my birthday, and to reach Australia within the specified thirty-day time limit meant that we had to arrive in Darwin on the 12th, eight days from now, and four more landings to make after leaving Singapore. Thus it will be seen we still had four days in hand. I therefore decided to remain the whole of next day at Singapore and work on our machine. ... The heat in Singapore was intense and, coming from the cold of the English winter, we felt it severely.

"From London to Australia by Aeroplane, A Personal Narrative of the First Aerial Voyage Half Around the World" by Sir Ross Smith, published in The National Geographic Magazine, March 1921



Postcard showing crowds flocking towards the Vickers Vimy biplane after it had landed at Farrer Park.





Below (from top to bottom): Wearne's First Flight Cover from Penang to Singapore, 28 June 1937. • Malayan First Day Air Service Cover from Singapore to Penang, 28 June 1937. • Maxicard of Paya Lebar Airport. • 2008 Singapore Changi Airport Terminal 3. • 1981 Singapore Changi Airport Miniature Sheet

week from Singapore to Kuala Lumpur and Penang.

Advances in aviation technology after the Second World War led to the development of bigger and faster civil aircraft. The inability of Kallang Airport to accommodate the Comet led to the extension and strengthening of the runway, but it was becoming apparent that a new civil airport was necessary. Construction thus began in 1952 of the Paya Lebar Airport, which was completed on 20 August 1955 and officially opened by then Chief Minister of Singapore, David Marshall, with British Colonial Secretary, Alan Lennox-Boyd, as guest-of-honour.

After independence, Singapore's growing role as an international trading hub and tourism destination led to the construction of Changi International Airport. The first phase, completed in 1981, included a runway, 45 aircraft parking bays, a passenger terminal, a maintenance hangar, a fire station, workshops and administrative offices, an airfreight complex, cargo agent buildings, in-flight catering kitchens and a 78-metre high control tower. Changi International Airport began operations on 1 July 1981 and was officially opened on 29 December 1981.

The airport later expanded with the addition of Terminal 2 which became operational on 22 November 1990 and was officially opened on 1 June 1991. Further expansion took place in 2008 with the opening of Terminal 3, which was designed to handle the gigantic Airbus A380, on 9 January 2008. The recent boom in budget air travel saw the addition of a separate Budget Terminal which began operations on 26 March 2006.

A CENTURY OF PLANE DELIGHTS

The history of Singapore's national airlines, which began in May 1947, is illustrated in a 2003 Aircraft Stamp Series. The stamps trace the development of our national airlines from Malayan Airways to Singapore Airlines, and their aircraft through the decades, from the light twin-engine Airspeed Consul to modern day Jumbos, Concorde, and Airbuses.

In February 2006, the first Airbus A380 in full Singapore Airlines livery was flown to Singapore. On 25 October the following year, the first commercial A380 service, SQ380, carried 455 passengers from Singapore to Sydney. Regular services with the A380 began on 28 October 2007. Thus, history was made once more as a French-assembled giant soared over Singapore, drawing countless eyes to the sky nearly a century after the first fateful flight by a Belgian in a biplane over the city's former race course.

Lucille Yap is a Senior Curator at the Singapore Philatelic Museum



The flight of birds has fascinated mankind for ages. Our quest to soar like the birds had led to many fantasies and inventions that would aid humans to 'fly'.

For centuries, humans have tried to fly like birds and studied avian flight. Wings, made of feathers or lightweight wood, were attached to arms to test their ability to take to the air. The results were often disastrous, as the muscles of the human

arms are incomparable to those of birds. Kites were important to the invention of flight as they were the forerunners to balloons and gliders. Since 400 BCE, kites have been used by the Chinese in religious ceremonies. In 1000 BCE, the Chinese were reported to have used kites for in warfare, carrying men as spies and dropping firebombs over enemy territory. This practice was witnessed by the Venetian merchant-traveller Marco Polo (1254-1324) in the 1300s when he was in

China. There are very reliable records of human attempts to fly until the early medieval times when the so-called tower jumpers appeared in force. Few of these courageous but perhaps misguided men were successful in their flying endeavours and in surviving their feats.

Between 1488 and 1514, the Italian inventor Leonardo da Vinci (1452-1519) made the first real studies of flight. He left over 100 drawings that illustrated his theories

The 'Flyer' attempted its maiden flight on 14 December 1903 in Kitty Hawk, North Carolina, USA. This attempt was not successful. The Wright brothers tried again three days later. This time, the Flyer lifted itself into the air at 10.35am. Although the flight lasted only 12 seconds and covered just 37 metres, it was the first self-powered, manned, heavier-than-air controlled flight in history.

on bird and mechanical flight. The drawings show the wings and tails of birds, ideas for human-carrying machines, and devices for the testing of wings.

The Ornithopter, a flying machine drawn by Leonardo da Vinci, was designed to be powered by a combination of leg and arm movements activated by means of mechanical devices. The machine was never actually created.

Leonardo da Vinci soon learned to imitate the way birds glide rather than use human-powered wing motion. He designed and built winged gliders for human use.

The 18th century saw the emergence of hot air balloons with proponents like the Montgolfier brothers, Joseph-Michel (1740-1810) and Jacques-Étienne (1745-1799). The French siblings used smoke from a fire to blow hot air into a silk bag, which was then attached to a basket. The Montgolfiers first sent people up in hot air balloons with a manned flight on 21 November 1783.

English engineer, Sir George Cayley (1773-1857), is considered the father of aerodynamics, which is the study of the movement of objects through the air. In 1804, he built the world's first successful model glider which was successfully flown by a young boy. In 1853, Cayley reshaped the glider's wing and added a tail to help with the stability.

The German Otto Lilienthal (1848-1896) made the first true controlled flights, gliding up to a distance of 230 metres. He experimented with various monoplane and biplane gliders which resembled giant bats. After more than 2,500 flights, Lilienthal was killed when he lost control during a sudden strong gust of wind and crashed into the ground.

The American Wright Brothers, Wilbur and Orville, constructed the first powered airplane, the 'Flyer', in the summer of 1903. Piloted by Wilbur, the Flyer attempted its maiden flight on 14 December 1903 in Kitty Hawk, North Carolina, USA. This attempt was not successful. The brothers tried again three days later. This time piloted by Orville, the Flyer lifted itself into the air at 10.35 am. Although the flight lasted only 12 seconds and covered a distance of just 37 metres, it was the first self-powered, manned, heavier-than-air controlled flight in history.

Man's Quest to Fly

