

SPEEDY SEAPLANES LEAVE MARK

Intense rivalry took place in the world of aeronautics during the early years of the 20th Century. Dare-devil men and women were willing to trust their lives to frail machines often made of wood, covered by fabric. Many suffered injuries, sometimes critical, while others lost fortunes blazing a trail across the skies during this rapidly-moving and exciting period.

Heavier-than-air craft development soon began taking different directions. However the difficulties of escaping terra firma and remaining aloft for a lengthy period remained paramount.

Although most take-off problems could be solved by increasing the power of the engines, greater size and added weight often negated that advantage. This, plus the expense of building the machines, was perhaps a prime reason pioneers of land-based craft kept them small in size, even though only light payloads were possible. Not until the military showed interest did small airplanes come into their own.

Seaplanes, or planes built on floats, came to the forefront of aircraft construction in 1910 after Frenchman Henri Fabre made the first successful take-off and landing in a powered craft which he named "*The Canard*." Costs of operating from water were discovered to be considerably cheaper and more convenient.

By late 1911 a leading American aircraft designer, Glenn Curtiss, was able to combine both floats and wheels and made a successful amphibian flight which earned him a U.S. government achievement award. That same year the United States navy acquired its first airplane and began a number of thorough trials, testing take-offs and landing techniques.

Aviation throughout the world was keeping pace with a number of important technical advances.

For European countries 1912 was a year of firsts such as the first scheduled seaplane five-passenger service craft in France, and the first successful seaplane using a specially designed hull.

London's "*Daily Mail*" newspaper competition in 1912 offered a prize of ten thousand British pounds to the pilot of the first seaplane making a non-stop flight across the Atlantic Ocean. Cashing the winner's cheque was Jean Conneau in a French Bleriot XI, covering the course in a time of 22 hours, 28 minutes.

The "*Mail*" offered several lucrative financial incentives over those years prior to the threatening outbreak of war, including five thousand pounds slated in 1913 as prize in a cross-country air race for British seaplanes. There was one starter, but no finisher. The final big 1914 race was cancelled due to the outbreak of World War I and the international scene grew more intense as the military powers began acquiring aircraft for war purposes.

The small Principality of Monaco was an early proponent of seaplane flight and 1914 saw the first major hydro-airplane competition take place. Starting the event in Paris, as many as 27 craft were said to have touched down in several European capitals and major centres on their route before exchanging landing gear for floats and completing the course in the sea off Monaco. Winner of the event was Rokand Garros, a well-known pilot. Other famous names or machines competing included Fabre, Curtiss, Tellier, and Farman.

In 1964 Monaco issued a set of stamps to commemorate the 50th anniversary of which a number depicted actual craft which took part in the event.

Monaco held its final rally in 1921 as it seems the press of visitors was almost outstripping the available viewing space in the tiny country.

The American pioneer designer Glenn Curtiss produced two new models in 1913 with modified hulls which he referred to as 'flying boats.'

Having combined his talents with a retired British naval officer, Lt. Cmdr. John Porte, Curtiss was making great progress. His most recent craft named '*America*' was designed as a bi-plane but was assigned too powerful engines. When the craft began to submerge due to added engine weight the original fins were replaced by underwater pontoons or sponsons, mounted in pairs on either side of the hull. Extra weight apparently made the craft difficult to handle and required a longer take-off area.

The partnership came to an end as World War I broke out and Porte rejoined the Royal Navy Air Force. Soon after, the British navy purchased Curtiss' '*America*' and placed orders for a further 60 units, some of which were assembled in Britain following some modifications on the hull.

As the war dragged on into 1917 Curtiss designed a '*Large America*' which combined with larger more powerful motors and other innovations was ready for service before the final year of the war. This turned out to be a very successful design and 170 units were built.

Great strides were being made in the development of seaplanes (float planes) which rely on pontoons or floats (sponsons), and flying boats which were dependent on their hulls or fuselage for buoyancy, during the next decade.

One of the most famous British manufacturers of flying boats, Supermarine, had been established in 1912. Five years later a young man joined the company, rapidly rising to the position of chief designer by the age of 24. His name, although not well known at that time, was Reginald Joseph Mitchell. One of his designs was the *Southampton* Flying Boat and the British military took the unusual step of ordering six craft directly from the drawing board in 1924. The pilot machine finally made its maiden flight some six months later. Eventually six Royal Air Force squadrons would be equipped with these craft which remained in service until 1936.

Mitchell was fond of high speed races and set his sights on winning the Schneider Trophy race, named after, and donated by, a French financier and balloonist. The trophy was first placed for competition in 1911 and the event was held 11 times during the next 20 years. Apparently the donor had intended the trophy to stimulate aircraft development and not the speed trials as developed later.

The race for seaplanes was held annually until 1927 after which it took place every second year. The course was to be established by the previous year's winner. Of the 11 races, Britain won the trophy five times and the Italian team three. The United States took home the prize twice and France just once.

Rather sportingly, the United States as hosts in 1924, on finding there would be no foreign competition, voluntarily postponed the race until the following year to allow the different countries sufficient time to prepare their airplanes. Both British planes had crashed before race day, while other countries withdrew.

The Supermarine craft were financially supported by the British government (said to be a common practice in Europe) which loaned Royal Air Force pilots to fly the seaplanes during the 1927 race, won by an *S-5* model, and the 1929 race taken by an updated '*S-6*' aircraft.

The British governing party withdrew all its support from the 1931 challenge and it appeared that the country would have to withdraw from the race. At the last minute a wealthy British woman (claimed not to be a supporter of the government in power) offered to fund the venture. It seems she embarrassed the government to such an extent that they relented and agreed to allow the RAF pilots to again fly the machines.

As the other countries entered had been forced to withdraw with technical problems, Britain won a third straight race and the trophy outright flying a modified '*S-6B*' Supermarine. Incidentally this same machine claimed a world speed record a few days later of 655.8 km/hour or 407.5 miles per hour.

Average speed of the Supermarine winner in 1922 was 145 mph which had soared to 340 mph around the course by 1931.

If the name Mitchell sounds familiar, it should, as his design was later developed into the famous Second World War '*Spitfire*.' Unfortunately Mitchell, suffering from cancer, died in 1937 before his amazing creation took to the skies.

Other famous World War II planes having roots in the Schneider Trophy races were the United States' P-51 '*Mustang*' and on the Italian side, the Macchi C202 '*Folgore*.'

A further interesting fact is that the Italian Macchi M.C. 72 which had withdrawn from the 1931 race with engine problems, in 1934 set a speed record of 709.202 km/hour (440.676 mph) for a piston-driven aircraft which, it is claimed, still exists today.

French CAMS-53 Seaplane,
1985



Farman biplane, an entry
in Monaco Rally, 1914



Nieuport Monoplane taking
part in Monaco Rally, 1914



Vickers Vidette built 1929
in Canada for RCAF



200 years of mail
delivery in Australia



Russian Gregorovich
Flying Boat, 1914



1947 Sealand SA-6,
issued by Cambodia

EMAILED TO CSN TUESDAY 06 AUGUST, 2013, 11:10 AM