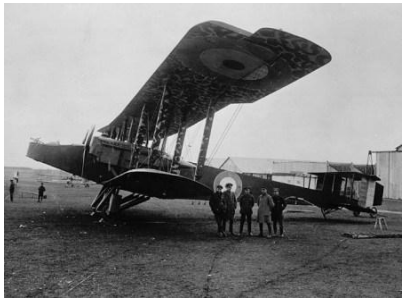
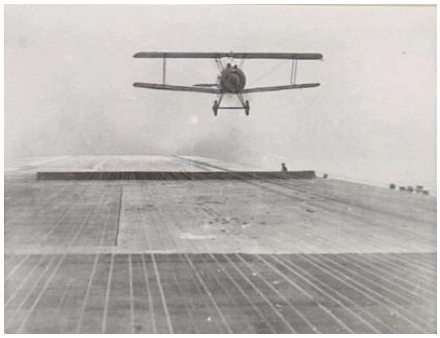
Early WWI Airplanes

The idea of arming aircraft to shoot down other aircraft only truly evolved in the first months of World War I, when it was soon recognized by air power advocates that reconnaissance aircraft were a vital weapon in modern warfare. Reconnaissance planes were not armed and risked being shot down. A defensive aircraft was needed.



There were no fighter aircraft in existence in 1914 but they were quickly developed once the trenches had been dug. Their first roles were to protect the important reconnaissance aircraft that had taken the place of redundant cavalry and to shoot down those of the enemy.

The earliest types of fighter planes were usually conversions of two-seater reconnaissance aircraft that had been fitted with a single machine-gun operated by the observer from the rear of the cockpit. The chief problem was that the machine-gun was easiest to aim when firing forward but this posed a major problem. The propeller was at the front of the plane and there was no means of firing through its arc without shooting the wood to bits.



There was one exception: "pusher" aircraft had the propeller to the rear with the crew positioned at the front but such aircraft had a much poorer performance. Pusher planes had a much lower top speed and were not very impressive on the battlefield.

A French pilot came up with a solution to the firing problem. In March 1915, he fitted steel plates to the propeller of, a two-seater monoplane so that bullets would be deflected away without causing damage. This "deflector gear" gave the Allies an edge in the race to develop better fighters but this disadvantage was soon lost.

The Germans captured an example of the deflector gear in April 1915 and set about making a better version. New technology, called interrupter gear, was a device that prevented a machine-gun from firing when a propeller blade passed immediately in front of its barrel. It was first tried out on the Fokker E-I monoplane and it had transformed air warfare by late 1915. These new German planes shot down more than a thousand Allied aircraft and took an especially heavy toll until the allies developed their own "interrupter" technology.