

## THE ROYAL FLYING CORPS

At the commencement of the First World War Britain had some 113 aircraft in military service, the French Aviation Service 160 and the German Air Service 246. By the end of the war each side was deploying thousands of aircraft. The Royal Flying Corps was formed in April 1912 as the military (army and navy) began to recognise the potential for aircraft as observation platforms. It was in this role that the RFC went to war in 1914 to undertake reconnaissance and artillery observation. The RFC also had a balloon section which deployed along the eventual front lines to provide static observation of the enemy defences. Shortly before the war a separate Naval Air Service (RNAS) was established.



The RFC had experimented before the war with the arming of aircraft but the means of doing so remained awkward - because of the need to avoid the propellor arc and other obstructions such as wings and struts. In the early part of the war the risk of injury to aircrew was therefore largely through accidents. As air armament developed the dangers to aircrew increased markedly and by the end of the war the loss rate was 1 in 4 killed, a similar proportion to the infantry losses in the trenches.

For much of the war pilots faced an enemy with superior aircraft, particularly in terms of speed and operating ceiling and a better flying training system. Weather was also a significant factor on the Western Front with the prevailing westerly wind favouring the Germans. These disadvantages were made up for by determined and aggressive flying, albeit at the

price of heavy losses, and the deployment of a larger proportion of high-performance aircraft. The statistics bear witness to this with the ratio of British losses to German at around 4 to 1.

When the RFC deployed to France in 1914 it sent four Squadrons (No's 2,3,4 and 5) with 12 aircraft each, which together with aircraft in depots, gave a total strength of 63 aircraft supported by 900 men. By September 1915 and the Battle of Loos, the RFC strength had increased to 12 Squadrons and 161 aircraft. By the time of the first major air actions at the first Battle of the Somme, July 1916, there were 27 Squadrons with 421 aircraft plus a further 216 in depots. The RFC expansion continued rapidly thereafter putting strain on the recruiting, training system and aircraft supply system.

At home, the RFC Home Establishment was responsible for training air and ground crews and preparing squadrons to deploy to France. Towards the end of the war they provided squadrons for home defence against German Zeppelin raids and later Gotha bomber raids. The RFC and the Royal Naval Air Service (RNAS) had limited success against the German raids largely through problems of locating and reaching the operating altitude of the Zeppelins. They were also deployed to the Middle East, Balkans and later to Italy. Initially the Middle East detachments had to make do with older equipment but were eventually given more modern machines.

The RFC (in small numbers) was able to give valuable assistance to the Army in the eventual destruction of Turkish forces in Palestine, Trans Jordan and Mesopotamia.



In the final days of the RFC, over 1200 aircraft were deployed in France and were available to meet the German offensive of 21 March 1918 with the support of RNAS squadrons. From 1 April these forces combined to form the Royal Air Force as an independent armed service.

The air services had grown by the end of the war to around 290,000 men, 99 Squadrons in France (with 1800 aircraft), a further 34 squadrons overseas, 55 Home Establishment squadrons and 199 training squadrons, with a total inventory of some 22,000 aircraft.

Major General Hugh Trenchard as Commander of the RFC in France for much of the war was the driving force behind the expansion of the air service supported by the Director General of Military Aviation Major General Sir David Henderson. Trenchard convinced Commander-in-Chief, General Haig, of the contribution of the air service and won his support for the expansion of the RFC in France (against the competing pressures for home defence and a long range bombing force, which ironically, Trenchard was later to command).

No. 32 Scout squadron formed in January 1916 from a nucleus of 21 Squadron and was equipped with single seat DH2's. The first CO - Maj. L W B Rees VC MC joined the squadron on 1 Feb 1916. Rees was replaced by Maj. T A E Cairnes DSO on 7 Jul 1916 following Rees' wounding in action (for which he received the VC). 32 Squadron later re-equipped in May 1917 with DH5's and these were then replaced from late December 1917 by SE5a's.

No. 103 Bomber Squadron was formed on 1 September 1917 at Beaulieu in Hampshire from a nucleus of No 16 Training Squadron. A week later they moved to Old Sarum in Wiltshire where they worked up and prepared for deployment to France. The Squadron was equipped initially with a variety of aircraft before finally receiving DH9 bombers in March 1918.

No. 62 Fighter Squadron formed on July 28th 1916, from a nucleus flight of No. 7. Training Squadron, Netheravon, Wiltshire. The squadron moved to Filton on 8th August, where the main draft of NCO's and men were posted from the Recruits' Depot, Farnborough, to form No. 62 Squadron. Major J.B.T. Leighton was posted as Commanding Officer with 2/Lt. H. Loeffler as Assistant Equipment Officer. The Squadron was equipped with Training machines including Avros, BE2d's, BE.2c's, BE2e's, BE12's and R.E.7's, with the task of graduating pilots on BE's.

The Squadron left St. Omer for Serny Aerodrome on the 1st February 1918. At Serny work commenced, initially with the Squadron conducting practice patrols typically in flights of six aircraft. The first balloon patrol took place on the 17th February 1918, the first line patrol on the 25th February, and the first offensive patrol (in heavy wind) on the 1st March 1918.

It became clear at the beginning of March that the Germans were going to attack on the St. Quentin front, the whole of the 9th Wing, to which 62 Squadron belonged, proceeded to Villers Bretonneux, Cachy, and Champien aerodromes. No. 62 Squadron was stationed at Cachy (near St. Omer) and carried out Offensive patrols. It was here that the exceptionally heavy work carried out by the Squadron during the enemy's offensive, commenced.



The Germans started to react to the British patrols on 10 March and 62 Squadron patrols (usually six aircraft) recorded their first main claims for destruction of enemy action - six on that day including those driven down out of control (OOC).

No. 80 Camel Scout Squadron RFC was formed at Thetford on 1 August 1917 from a nucleus of 36 RS (or TS) and moved to Montrose on 10 August 1917. The squadron was equipped with Sopwith Camel F1 Fighters.

The Sopwith F1 Camel had wicked torque and killed a lot of novice British pilots, but the (5,490 produced) shot down more German aircraft (1,294) than any other Allied plane. Its name derived from the slight hump forward of the cockpit. Its twin

30 calibre Vickers machine guns enabled it to destroy its flimsy opponents.

It was developed from the Sopwith Pup, a little fighter introduced in 1916 but which was soon outclassed by the German Albatrosses and Halberstadts. Sopwith's chief designer Herbert Smith, began work on the Pup's successor in late 1916 and by December the prototype F.1 was ready to fly. They also built several other prototypes. In appearance and design, the plane was not revolutionary. A Biplane combining a distinct dihedral in the lower wing with a flat upper wing. It did have a distinctive 'tapered gap.' The fuselage was a wooden, box-like structure, covered with aluminium up front, plywood covered around the cockpit and then fabric covered back to the tail.

With its centre of gravity forward (the engine, fuel tank, guns and pilot were all in the front third), the aircraft was tricky to fly but very manoeuvrable for a skilled pilot. Whilst 413 Camel pilots were shot down in combat, 385 were lost in non-combat related situations.

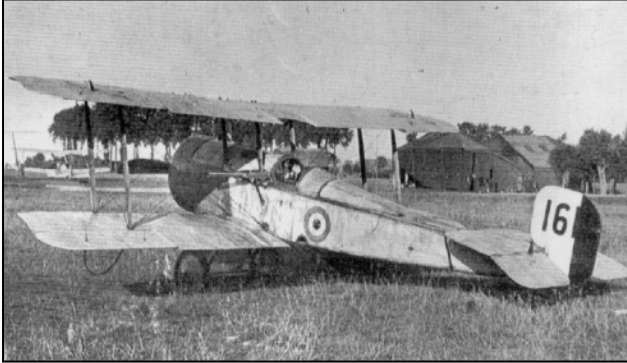
**Specifications included:**

Max. speed 117 mph at sea level.

19,000 feet ceiling. Climb rate 10 minutes to reach 10,000 feet.

Wingspan 28 feet & length 18 feet 9 inches. Height 8 feet 6 inches.

Guns: Two synchronized .303 inch Vickers machine guns side by side and four 20lb bombs.



The actual Bristol Scout C, RFC serial no. 1611, flown by Lanoe Hawker on 25 July 1915 in his Victoria Cross-earning engagement.



German soldiers examine a captured British BE2d light bomber forced down near Vaulx-Vraucourt, 1916.

Avro 504 (courtesy of Tangmere Museum)

**Specifications included:**

Crew – 2

Length 29.36 feet. Wingspan 35.93 feet. Height 10.50 feet.

Maximum speed 90 mph.

Range 249 miles.

Service ceiling 16,000 feet.

Rate of climb 700 feet per minute.

One 7.62 Lewis Machine gun.

Soon obsolete as a frontline aircraft, it came into its own as a trainer, with thousands being built during the war, with the major production types being the 504J and the mass production 504K, designed with modified engine bearers to accommodate a range of engines in order to cope with engine shortages. 8,340 Avro 504s had been produced by the end of 1918.

In the winter of 1917–18 it was decided to use converted 504Js and 504Ks to equip Home Defence squadrons of the RFC, replacing ageing B.E.2cs, which had poor altitude performance. These aircraft were modified as single-seaters, armed with a Lewis gun above the wing on a Foster mounting, and powered by 100 hp (75 kW) Gnome or 110 hp (80 kW) Le Rhône engines. 274 converted Avro 504Js and Ks were issued to eight home defence squadrons in 1918, with 226 still being used as fighters at the end of World War I.



# ROYAL FLYING CORPS

## MILITARY WING



**VACANCIES EXIST**

FOR

Men aged 18 to 30 of various mechanical trades, and others of good education.

They should apply to the nearest Recruiting Officer, or write for particulars to Headquarters, Royal Flying Corps, (M.W.), South Farnborough, Hants.

**PAY.**

2nd Class Air Mechanic	2/-	per day.
1st " "	4/-	" "
Corporal " "	5/-	" "
Sergeant " "	6/-	" "
Flight Sergeant " "	7/-	" "
Warrant Officer " "	9/-	" "



REPAIR LORRY



ARMY AEROPLANE B.I. TYPE

Men selected to be trained as Flyers will receive in addition 2/- or 4/- per diem.

Free Clothing and necessities, quarters, rations, fuel and light, and medical attendance.

One month's furlough per annum on full pay.

When transferred to the Army Reserve a soldier of the Corps will receive an annual gratuity of £10 in lieu of Reserve Pay.



If, while serving in the Reserve, he is placed on the first Reserve as a flyer, he receives a further £10 per annum, subject to his performing a Quarterly Flying Test.

Men of the following trades and professions are specially required :

Blacksmiths, Coppersmiths, Acetylene Welders, Instrument Repairers, Motor Fitters, and Aeroplane Mechanics.



**GOD SAVE THE KING**

