

Brief History of the Australian Flying Corps during WWI

In 1914 Australia's only military aviation base, the Central Flying School, newly established at Point Cook, was equipped with two flying instructors and five flimsy training aircraft. From this modest beginning Australia became the only British dominion to set up a flying corps for service during the First World War. Known as the Australian Flying Corps (AFC) and organised as a corps of the Australian Imperial Force (AIF), its four-line squadrons usually served separately under the orders of Britain's Royal Flying Corps (RFC). The AFC's first complete flying unit, No. 1 Squadron, left Australia for the Middle East in March 1916. By late 1917 three more squadrons, Nos 2, 3, and 4, had been formed to fight in France. A further four training squadrons based in England formed an Australian Training Wing to provide pilots for the Western Front.

Recruitment

Many young Australian men, eager to join the Australian Flying Corps were rejected, not on the basis of ability but due to the fact there just weren't sufficient facilities in Australia to train them. Many of these men were to travel to England and join the Royal Flying Corps or Royal Naval Air Service. Approximately 200 Australians and many New Zealanders flew with the British Flying Services during World War I.

Not everyone was suited to this new field of military operations. Light horsemen or "Bushmen" were thought to be physically fitter, have quicker reflexes and a better "character" than other recruits. Many of the AFC's later recruits came from the ranks of the Light Horse; most of these already had years of active service. The Squadron also drew men from other backgrounds: the AFC's only Victoria Cross winner, Captain Frank McNamara, had been a schoolteacher.

Many of those who joined the squadrons on the Western Front also had prior service. The list of candidates for appointment to become flying officers in June 1918, for example, records a mixture of officers and other ranks: some had been gunners, others clerks, drivers, infantrymen, or members of the medical services. Many were recommended for admission by their commanding officers on no other ground than their good record as soldiers in the line.

Training

The AFC conducted both pilot and mechanic training in Australia at the Central Flying School (CFS) at Point Cook, but this was limited in duration due to embarkation schedules. This meant that further training was required overseas before aircrew were posted to operational squadrons. The first course began on 17th August 1914 and lasted three months. The two instructors, Henry Petre and Eric Harrison, who had been recruited from the United Kingdom in 1912 to establish the corps, trained the first batch of Australian aircrew. In the end, a total of eight flying training courses were completed at the CFS during the war, with the final course commencing in mid June 1917. The first six courses consisted only of officers, but the last two, included a number of non-commissioned officers. These courses varied in class size from four on the first course, to eight on the next three, 16 on the fifth, 24 on the sixth, 31 on the seventh and 17 on the last one. There was limited wastage on the early courses, with all trainees successfully completing the first six courses, but final two courses suffered heavily from limited resources and bad weather, which resulted in less than half the students graduating. To complement the aviators trained by the CFS, the New South Wales government established its own aviation school at Clarendon, at what later became RAAF

Base Richmond, which trained pilots, observers and mechanics. A total of 50 pilots graduated from this school, the majority of its graduates went on to serve in the British flying services, although some served in the AFC.

In early 1917, the AFC began training pilots, observers and mechanics in the United Kingdom (UK). Aircrew undertook a six-week foundation course at the two Schools of Military Aeronautics in Reading or Oxford. After this, those who passed graduated to flight training at one of the four AFC training squadrons: Nos. 5, 6, 7 and 8, which were based at Minchinhampton and Leighterton in Gloucestershire.

Flight training in the UK consisted of a total of three hours dual instruction followed by up to a further 20 hours solo flying. Although some pilots, including the AFC's highest-scoring ace, Captain Harry Cobby DSO DFC & 2 Bars, received less, after which a pilot had to prove his ability to undertake aerial bombing, photography, formation flying, signalling, dog-fighting and artillery observation. Elementary training was undertaken on types such as Shorthorns, Avro 504s and Sopwith Pups, followed by operational training on Scouts, Camels and RE8s. Upon completion, pilots received their commission and their "wings", and were allocated to the different squadrons based on their aptitude during training. The best were usually sent to scout squadrons, while the others were sent to two-seaters.

Not everyone, however, survived the day's flying. Many pilots were killed in accidents long before they could join a line squadron. Over a third of the AFC's wartime fatalities occurred in Britain. Some trainees died after the war had ended.

Initially, the AFC raised its ground staff from volunteer soldiers and civilians who had previous experience or who were trade trained. When the first AFC squadron was formed these personnel were provided with very limited training that was focused mainly upon basic military skills. As the war progressed, a comprehensive training program was established in which mechanics were trained in nine different trades: welders, blacksmiths, coppersmiths, engine fitters, general fitters, riggers, electricians, magneto-repairers and machinists. Training was delivered by eight technical sections at Halton Camp (UK). The length of training within each section varied, but was generally between eight to 12 weeks; the more complex trades such as engine fitter required trainees to undertake multiple training courses across a number of sections. General fitters had the longest training requirements, receiving 32 weeks of instruction.

First AFC Role in the Great War

The first operational role of the AFC in the Great War was to provide support to the Australian and Naval Military Expeditionary Force (AN&MEF) during the invasion of German New Guinea on 11th September 1914. Two BE2a aircraft and a Farman Shorthorn Floatplane were crated and formed part of the AN&MEF, but the German resistance was light and Rabaul fell quickly without needing the aid of the AFC and aircraft never taken out of their crates.

First Squadron to Fight

Before No. 1 Squadron made its journey to the Middle East, Australian airmen had been in action in Mesopotamia (now Iraq). A Turkish threat to the Anglo-Persian oil pipeline and the strategically important area at the head of the Persian Gulf (the Shatt-el-Arab) convinced British strategists of the need to open a second front against the Turks. The Australian Government was asked to provide aircraft, airmen, and transport to support the Anglo-Indian

forces assigned to the campaign. It responded by dispatching four officers, 41 men and transport – called the Mesopotamian Half Flight – in April 1915. Arriving too late to help secure the Shatt-el-Arab and the oil pipeline, the Half Flight joined the British advance on Baghdad, an operation intended to exert additional pressure on the Turks in the east. The attempt to reach Baghdad failed, and some 13,000 British and Indian troops found themselves besieged by superior Turkish forces in the city of Kut, about eighty miles south of their objective. Attempts to relieve the siege failed and in April 1916 the garrison at Kut, including members of the Half Flight, surrendered. Taken prisoner by the Turks, few survived captivity. The defeat on the Tigris marked the end of Australia's first experience of military aviation.



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Two unidentified members of the Half Flight seated in a Maurice Farman Shorthorn aircraft.
(Image from the Australian War Memorial)

Australian Flying Corps - No. 1 Squadron

Battle Honours: Egypt 1915-17 and Palestine 1917-18

The squadron began flying operations in its own right on 12th June 1916, although its three flights operated independently from dispersed airfields. Initially the squadron's main role was aerial reconnaissance and its aircraft operated both out across the Sinai desert in search of Turkish forces, and across Egypt's western desert to monitor activity by the rebellious Senussi. Increasingly, though, its aircraft were involved in attacks against Turkish ground forces.

After being reunited in December 1916, the squadron supported the British and dominion advance into Palestine. It became a "jack of all trades" carrying out reconnaissance, photography, ground attack and liaison missions, in addition to having to fight off aggressive German adversaries. For his actions following an attack on the railway line at Tel el Hesi, near Gaza, on 20th March 1917, Lieutenant Frank MacNamara was awarded the Victoria Cross. During the raid, one of McNamara's comrades was forced down and, despite being wounded himself, McNamara landed to rescue him from beneath the guns of a Turkish cavalry unit.

With the arrival of new aircraft in the second half of 1917, the British and dominion air forces were able to gradually wrest control of the air from the German squadrons. This allowed them to range over Turkish territory with virtual impunity and airpower contributed greatly to the success of British and dominion operations in 1918, particularly the last great offensive of the campaign, launched with the Battle of Megiddo on 19th September 1918. On 22nd September 1918, the famed Lieutenant Colonel T E Lawrence (Lawrence of Arabia) called for air assistance for his Arab army that were being constantly attacked by German air forces. Led by Captain R Smith, he and two others from No 1 Squadron, in their Bristol fighters went to Lawrence's aid, shooting down several German invaders. Order was restored, and to

keep the offensive going, Smith had petrol and ammunition flown into his position by a Hanley-Page bomber so he could remain with Lawrence's army to protect it.



A Handley-Page O/400 aircraft with some Bristol Fighter machines at the aerodrome of the Australian Flying Corps at Haifa. Captain Ross Macpherson Smith frequently piloted this aircraft.

(Image from Australian War Memorial)

The Turkish forces surrendered on 31st October 1918. Addressing the squadron after the Armistice, General Sir Edmund Allenby, the British Commander-in-Chief, congratulated the AFC's No. 1 Squadron it for its role in the victory:

"This squadron played an important part in making this achievement possible. You gained for us absolute supremacy of the air, thereby enabling my cavalry, artillery and infantry to carry out their work on the ground practically unmolested by hostile aircraft. This undoubtedly was a factor of paramount importance in the success of our arms here."



No. 1 Squadron, Australian Flying Corps next to their Bristol FB1 fighters, at Mejdal. The officer in the foreground (with stick) is Lieutenant-Colonel R. Williams, D.S.O., commanding. (Image from Aust. War Memorial)

No. 1 Squadron returned to Egypt in February 1919, embarked for home on 5th March and was disbanded upon its arrival in Australia.

Australian Flying Corps - No. 2 Squadron

Battle Honours; Egypt 1915-17 and France/Flanders 1916-18

In September 1916, AFC's No. 2 Squadron was deployed for operations over the Western Front and was redesignated as No. 67 Squadron of the Royal Flying Corps (RFC). Equipped initially with DH-5 aircraft, 67 Squadron was a "scout" squadron, the main role of which was to escort larger, slower aircraft, seek out and destroy the enemy's aircraft, and provide support for ground troops. In France, the squadron joined the 13th Army Wing, RFC, at Baizieux and its aircraft were involved in their first engagement on 2nd October 1917. The squadron was soon drawn into the ongoing operations that constituted the third battle of Ypres, and was heavily involved in ground attack operations. This role continued during the battle of

Cambrai (20th November – 7th December 1917). On the first day of the battle, 67 Squadron lost seven of its eighteen aircraft either destroyed or badly damaged; on each day of the battle, losses among the ground attack squadrons averaged 30 per cent. Six Military Crosses were awarded to 67 Squadron personnel for their actions above the Cambrai battlefield.

In December 1917, 67 Squadron was re-equipped with SE-5 aircraft but its operations throughout the winter of 1917-18 were hampered by bad weather. The squadron was redesignated No. 2 Squadron, Australian Flying Corps, on 4th January 1918. Early 1918 saw the squadron operate from a succession of airfields under the command of several RFC/RAF wings - 10th, 22nd and then 51st. The Royal Air Force (RAF) was created when the RFC and the Royal Navy Air Service combined forces on 1st April 1918. Like much of the Allied air forces, the squadron operated at fever pitch during the German spring offensive to regain the initiative in the air and support the troops on the ground. In June, the squadron played a similar role in support of French forces when the Germans launched their Marne offensive.



Image above are SE-5 aircraft of C Flight of No 2 Squadron, Australian Flying Corps (AFC) lined up on a field used as a makeshift airfield. Identified, from left: Lieutenant (Lt) Frederick Walter Sexton,; Lt Lawrence Benjamin, Air Mechanic Second Class Patrick Gaffney, Captain (Capt) Henry Garnet Forrest, Corporal (Cpl) William Bennett Campbell, MM, Lt Alpin Charles Grant Cameron, 1st Air Mechanic E Hayman; Sergeant Allen Raybould, Cpl Leslie Dunnet, and Capt Roby Lewis Manuel. (Image from Aust. War Memorial)

On 21st June 1918, 2 Squadron along with 4 Squadron of the AFC and 46 and 103 Squadrons of the RAF, became part of the newly formed 80th Wing. 2 Squadron was active throughout the Allied counter-offensive. It was almost as mobile on the ground as it was in the air, relocating on several occasions to ensure it was best placed to support the Allied advance. By this stage in the war the Allied air forces had almost complete dominance of the air.

The squadron's last major operation of the war was flown on 9th November 1918. After the Armistice, squadron personnel were involved in evaluating captured German aircraft. The squadron relinquished its own aircraft and returned to the United Kingdom in February 1919. On 6th May it sailed for home aboard the *Kaisar-i-Hind*. 2 Squadron finally disbanded with disembarkation of last members in Sydney on 18th June 1919.

Australian Flying Corps - No. 3 Squadron

Battle Honours: France/Flanders 1916-18, Somme 1918, Amiens, Hindenburg and Hindenburg line

Delayed by bad weather, the squadron finally arrived at their appointed aerodrome in France (Savy) on 10th September 1917. The squadron was subsequently employed in support of the ground forces, operating over the Canadian and XIII Corps' front near Arras.

In November 1917, the squadron moved to Flanders to operate in support of the Australian Corps. Its duties included locating enemy gun emplacements, artillery spotting and bombing patrols. In early 1918, operations extended to dropping propaganda leaflets and, in February, photographic reconnaissance work. During the German spring offensive, the squadron moved to the Somme valley and was involved in vital artillery spotting operations.

Two No. 3 Squadron aircraft were instrumental in triggering-off the famous aerial combat of 21st April 1918 that resulted in the death of Germany's leading air ace, Baron Manfred von Richthofen. On that fateful Sunday morning, Lieutenants S. G. Garrett and A. V. Barrow and Lieutenants T. L. Simpson and F. C. Banks were on a reconnaissance of the German lines near Hamel at 7000 feet when they were attacked by an element of four Fokker Dr.1 triplanes from a large 'Richthofen's Circus' formation, led by the Baron himself. Simpson and Banks fought their way to the safety of nearby cloud cover, and the enemy triplanes concentrated on the second R.E.8. Through a combination of Garrett's skilful flying and Barrow's accurate shooting, one triplane, believed to be a Jasta 5 aircraft, was shot down. The other three triplanes then withdrew to the main Circus formation to regroup for an approaching attack by several Sopwith Camels from No. 209 Squadron, RAF. It was during the subsequent fight that the 'Red Baron' was shot down fatally. [His body was subsequently buried with full military honours by AFC's No. 3 Squadron.]

In late June 1918, the squadron was involved in experiments in aerial supply methods for ground troops and in July contributed to noise diversion operations in connection with the battle of Hamel. The squadron also assisted Allied movements in the battle of Amiens by dropping smoke bombs and continued its reconnaissance duties during the Allied advance to the Hindenburg Line. The squadron's last offensive operations took place on 10th November 1918, the day before the signing of the Armistice.



France? 1918? Side view of a Royal Aircraft Factory R.E.8 aircraft (C2413) of No. 3 Squadron, Australian Flying Corps. Note the Coopers bombs beside the aircraft. Amongst the crew is possibly Observer Lieutenant G. S. Bell.

(Image from Australian War Memorial)

After the Armistice the squadron supported Allied forces in the move to the German frontier and was also used to provide a postal air service for the AIF. On 21st February 1919 the squadron began its move to Hurcott Camp, near Salisbury and on 6th May 1919 embarked on RMS Kaiser-i-Hind at Southampton and sailed for Australia, arriving at Port Adelaide on 16th June 1919.

Australian Flying Corps - No. 4 Squadron

Battle Honour: France/Flanders 1916-18

No. 4 squadron arrived in France on 18th December 1917 and established itself at Bruay. It was assigned to the 10th Wing of the Royal Flying Corps, and operated in support of the

British 1st Army, undertaking offensive patrols and escorting reconnaissance machines. The unit's first patrol over German lines took place on 9th January 1918, and its first air combat action occurred on 13th January 1918.

Towards the end of February 1918, the squadron was increased from 18 to 24 machines, considerably enhancing its capacity for offensive operations. March 1918 saw an increase in the squadron's ground attacks and offensive patrols, including a notable engagement with elements of Manfred von Richthofen's "Flying Circus" on 21st March, during which five enemy machines were downed in an attack led by Captain Arthur Henry Cobby DSO DFC & 2 Bars.



Lieutenants Jack Henry Weingarh (left), Roy George Smallwood (centre), and Vincent George Sheppard, of No. 4 Squadron, Australian Flying Corps, standing in front of one of the Squadron's Sopwith Camel aircraft. (Imaged from Aust. War Memorial)

During the German spring offensive, the squadron was heavily involved in strafing and bombing operations in support of the retreating Allied ground forces. Threatened by the German advance, the Squadron moved from Bruay to Clairmarais North on 28th April 1918 and joined 11th Wing, part of the British 2nd Army.

Due to repeated enemy bombing attacks on the Clairmarais North airfield, the Squadron moved to Reclinghem on 30th June, where it shared the aerodrome with No. 2 Squadron AFC. Both squadrons formed part of 80th Wing under the British 5th Army. In July, the squadron was heavily involved in offensive patrols and also provided escorts for bombing and reconnaissance missions. 4 Squadron maintained a high operational tempo throughout the great Allied offensive launched in early August 1918.

At the end September 1918, 4 Squadron moved to Serny and in early October was re-equipped with Sopwith Snipe fighters; it was only the second unit in France to be equipped with these advanced machines. The squadron was relocated several times during the last month of the war, and following the Armistice was assigned to the British Army of Occupation. It moved to Bickendorf, near Cologne on 17th December 1918. In March 1919 the squadron returned to the United Kingdom and on 6th May embarked on RMS Kaiser-i-Hind for the return voyage to Australia. 4 Squadron arrived in Melbourne 16th June 1919 and was subsequently disbanded.



RE8 Combat (Graphic by Gustav Farmer)

(Image from 3squadron website)

Men in their flying machine

Two main types of aircraft were used by the AFC: two-seater reconnaissance planes, in which the observer, armed with machine-guns, sat behind the pilot; and single-seater fighters. The latter dominated the popular imagination; they were the aces, the fastest aircraft fighting duels with men like themselves above the trenches. In reality, aerial combat was a difficult skill to master, requiring split-second timing and complete mastery of aircraft and weapons.



The view from the cockpit of a Sopwith Camel.

(Image from Aust. War Memorial)

The AFC's best aircraft in the final year of the war were among the most technically advanced of the day. Bristol's BF2b, a two-seat fighter-bomber known as the Bristol Fighter, could climb to 10,000 feet in 11 minutes and fly at 113 miles an hour when it got there. The famous Sopwith Camel could reach 12,000 feet in 12 minutes, fully loaded with weapons and ammunition, and fly as quickly as the Bristol Fighter. Pilots and observers sat exposed to the elements in noisy open cockpits. A man in No. 1 Squadron described a dog-fight as,

“every man for himself. We go hell-for-leather at those snub-nosed, black crossed busses of the Hun, and they at us. ... Hectic work. Half-rolling, diving, zooming, stalling, “split-slipping”, by inches you miss collision with friend or foe. Cool precise marksmanship is out of the question”.

He was in fact the observer in a two-seater and thus did not have the opportunity to use a forward firing machine-gun. Those like Captain Cobby, who flew in fighters, also found that in a dog-fight, which by the end of the war could involve up to 100 aircraft, hitting the enemy was very difficult:

“The air was too crowded, there was little opportunity to settle down and have a steady shot at anything. You would no sooner pick out someone to have a crack at, than there would be the old familiar ‘pop-pop-pop-pop’ behind you, or you would just glimpse an enemy pilot getting into position to fire on yourself – so hard boot and stick one way to save your skin”.

When two skilled opponents met in the air, the fight was often lengthy, both men knew only one would survive. The German airman, Ernst Udet, described one such such combat: "I tried every trick I knew – turns, loops, rolls, and sideslips - but he followed each movement with lightning speed and gradually I began to realise that he was more than a match for me ... the man was a superior duelist. "When his guns jammed, Udet thought he was doomed; but he was lucky – his antagonist turned his aircraft upside down, waved farewell, and dived towards the allied line.

As Udet discovered, the air war could sometimes be chivalrous. As the Australian historian, F.M. Cutlack, wrote, "the star airmen of the opposing armies regarded each other with a curious mixture of personal esteem and deadly hostility." Many toasts were drunk to Richthofen by men who would have gladly killed him, given the chance. When he was killed, Australian airmen placed wreaths on his grave. In the Middle East Oberleutnant Gerhardt Felmy, the leading German pilot facing No. 1 Squadron, earned the admiration of his adversaries. It was not uncommon for him to drop messages from and photographs of recently captured Australian airmen on their home field. The Australians did the same for the Germans and drank toasts to Felmy in their mess. On the Western Front captured enemy pilots were treated with respect by their allied counterparts and vice-versa.



Oberleutnant Gerhardt Felmy (right) poses with Lieutenant C.H. Vautin of No. 1 Squadron. Vautin was taken prisoner, having crash- landed in July 1917. Two days later Felmy dropped this photo over Vautin's aerodrome to prove the Australian was all right. A member of No. 1 squadron then flew over Felmy's aerodrome to drop Vautin's clothes, kit, and some letters from home.
(Image from Australian War Memorial)

Of the approximate 521 Australian pilots in the AFC, RFC and RNAS, up to 65 became 'Aces'. An ace was a flier with five or more victories. The most successful Australian Pilot in British service was Captain Robert Alexander Little DSO & Bar DSC & Bar CdeG (Croix de Guerre France) from Windsor, Victoria. Commissioned into the Royal Naval Air Service late in January 1916, he later became a captain and the 8th top-scoring British ace with 47 enemy planes shot down. Captain Little was awarded the Distinguished Service Order twice and the Distinguished Service Cross twice. He was 22 when shot down and killed on 27th May 1918, while attacking a German bomber.

The second most successful Australian Pilot was Major R S Dallas DSO DSC & Bar CdeG, from Central Queensland with 39 air victories. Commissioned into the Royal Naval Air Service in August 1915, he later became a major and took command of RAF No.40 Squadron. Major Dallas was awarded the Distinguished Service Order and the Distinguished Service Cross twice. He was 26 when shot down and killed on 1st June 1918 while on patrol near Liévin northern France. He was buried in Pernes.

The leading AFC ace was Captain A.H. Cobby, DSO, DFC and two bars, from Melbourne, Victoria. Transferred to No. 4 Squadron AFC as a 2nd Lieutenant in December 1916 and appointed 'pilot' by September 1917. After just eight months of combat flying, he was the leading Ace in the AFC. Captain Cobby shot down 29 enemy planes and 13 observation balloons.

The other two leading AFC aces, also from No.4 Squadron, were Captain E.J.K McCloughry with 23 victories and Captain R. King, DSO, DFC, with 22.5 victories.

The Aftermath

During the war between 2,694 to 3,640 men served in the AFC and 178 were killed. By First World War standards, these casualties were light. The AFC was a pioneering corps that helped to lay the groundwork for the Royal Australian Air Force. Through the efforts of men, such as Hudson Fysh and the Smith brothers, the AFC made a significant contribution to Australian civil aviation.

Sources obtained from the following websites:

1. Australian War Memorial website at <https://www.awm.gov.au>
2. Image of RE8 Combat (Graphic by Gustav Farmer) from website at <https://www.3squadron.org.au/index.htm>
3. The Australian Flying Corps at <http://www.iol.com.au/~conway/ww1/afc.html> [site no longer active - cached version posted here]
4. Warfare in a new dimension : The AFC in the First World War: <https://www.awm.gov.au/articles/first-world-war-flying>
5. Australian Army Aviation Association at <http://www.fourays.org/australian-flying-corps.html>
6. Centenary of ANZAC Tasmania Remembers 2014-2018 at http://www.centenaryofanzac.tas.gov.au/history/royal_australian_air_force