



VICKERS VIMY AEROPLANE in which Ross Smith and his brother, Keith, won the £10,000 prize offered by the Australian Government for the first Australians to fly from England to the Commonwealth in under thirty days. The machine was similar to that in which Alcock and Brown had made the first crossing of the North Atlantic, and had been designed during the war of 1914-1918 as a heavy bomber.

## GREAT FLIGHTS—4

# THE FIRST TO AUSTRALIA

*London to Port Darwin in Twenty-Eight Days in an Open-Cockpit Machine*

THE story of the first flight to Australia is largely a story of a race against time. Among the aviators who were attracted by the flight of over 11,000 miles and by the £10,000 prize offered by the Australian Government for the first Australians to fly from England to the Commonwealth in under thirty day were two brothers, Ross Smith and Keith Smith. They had intended to enter for the competition from the outset, but had been prevented from doing so by a series of mishaps to Ross Smith.

It was in October 1919, less than a month before they left, that the two brothers arranged with the Vickers Company to fly the Vickers Vimy bomber to Australia. The need for speedy preparation was emphasized by the fact that winter was approaching, and also by the fact that four other aviators were ready to leave before the

Vimy was handed over to Ross Smith. Alcock and Brown having successfully proved the long-distance capabilities of the Vickers Vimy on the North Atlantic flight, which is described in a chapter beginning on page 117, the Vickers company entered a similar type of machine for the flight to Australia. The Vimy was a biplane which had been designed during the war of 1914-18 as a heavy bomber. The span of its main planes was about 68 feet. Its length was 42 ft. 8 in. overall and it stood 15 feet high. It was driven by two Rolls-Royce Eagle VIII engines, each of 360 horsepower.

During those few weeks after the machine had been handed over to him, Ross Smith prepared for his flight. His brother, Keith, was to be his navigator. Sergeants Bennett and Shiers (who had accompanied Ross Smith on a series

of experimental flights from Cairo to Calcutta) were chosen as mechanics. The route decided on was England to France, Italy, Crete, Egypt, Palestine, Mesopotamia (Iraq), Persia (Iran), India, Burma, Federated Malay States, Netherlands East Indies, Port Darwin (Australia). This route was divided into four sections, London to Cairo, Cairo to Calcutta, Calcutta to Singapore, and Singapore to Australia. Having been over the route earlier in the year, Ross Smith was to some extent familiar with weather and local conditions.

Among the many problems that had to be decided before the flight began was the important one of spare parts. Oil and fuel had been shipped to remote aerodromes, but, as it was impossible to ship spare parts in time, it was decided to carry them in the machine. This added considerably to the weight, and at the final weigh-in the fliers were



**HEROES OF THE FIRST ENGLAND TO AUSTRALIA FLIGHT.** Keith Smith, on the left, was the navigator, and his brother, Ross Smith, the pilot, but Keith was in control of the aeroplane part of the time. They experienced extremely bad weather. Both brothers were knighted after their successful flight.

300 lb. overweight. The problem of what to leave out was solved by the aviators deciding to carry no personal belongings and no radio set.

After many delays, caused by bad weather, Ross Smith took off from Hounslow, Middlesex, on November 12, 1919, in some of the worst flying weather imaginable. The aerodrome was shrouded in fog, but the weather cleared when they reached the Kent coast. The first stage of the flight was from Hounslow to Lyons, a distance of about 500 miles.

They met more bad weather over the coast of France. All the way to Lyons they battled against the weather. They flew through dense cloudbanks; snow and ice-cold wind lashed them in their open cockpit. They flew down beneath the cloudbanks, only to be driven up to 9,000 feet by a blizzard. The air speed indicator was choked, and the crew sat frozen, ghost-like figures in the open cockpit. Their goggles became coated with ice and were useless. They suffered intense pain from the exposure of their eyes to the 90 miles an hour gale. Shortly after 1 p.m. the situation became serious. There was a threat that the flight might end prematurely if not fatally. Keith Smith was unable to take his bearings, and the aviators were uncertain of their position. Ross Smith, numbed and paralysed by the cold, was in danger of losing control of the machine. When the outlook was grave, when they had almost given up hope of continuing the flight, they met a large

cloud lined with silver edges. Beside the cloud was a gulf, at the bottom of which was the sea. This gulf resembled a vast crater and Ross Smith headed the Vimy down the long, seven-thousand feet avenue. "The escape through this marvellous gateway," he wrote in his account of the flight, "seven thousand feet deep, that seemed to link the realms of the infinite with the lower world of mortality, was the most soul-stirring episode of the whole voyage."

#### Loss of Vital Hours

THE next stage of the flight, from Lyons to Rome, was without incident, but after they had crossed the Gulf of Genoa and had picked up the coastline again at Spezia, they met a strong headwind. Ross Smith realized that it was impossible for them to reach Rome before dark, and they landed at Pisa. They were anxious to leave Pisa early the next morning, but heavy rain had set in, and the landing ground resembled a lake rather than an aerodrome. Ross Smith started up the engines and tried to taxi into the wind, but the aeroplane was bogged, and would not move an inch.

With the help of thirty Italian mechanics the machine was dug out of the mud after three futile attempts. Then, even Ross Smith and his companions, who had taken risks from the beginning of the flight, saw that it was hopeless to try to leave that day.

Next morning more rain and a cold south wind greeted them when they

was swung round, but one wheel stuck in the deep mud. Once again the Vimy was bogged.

Ross Smith and his crew stood by, thinking of the ever-increasing distance between themselves and Poslet. Another attempt was made to pull the machine out of the mud, but the mechanics had scarcely raised the wheels before they sank again. His patience exhausted, Ross Smith realized that a supreme effort must be made or the flight abandoned. He opened out the engines and tried to taxi forward and drive the wheels through the mud. The wheels did not move, but the tail lifted suddenly and the Vimy nearly stood on its nose. Keith Smith and Sergeant Shiers climbed into the back cockpit, while Sergeant Bennett put all his weight on the tail. Once again Ross Smith opened out the engines and tried to drive the Vimy through the mud. Some of the Italian mechanics pulled forwards on the wing-tips, and the machine moved slowly.

The aeroplane ploughed on, but Sergeant Bennett was not in it. As the Vimy gathered way through the mud and water, Bennett somehow managed to scramble in.

Misfortune was still waiting for them. Heavy winds and dense cloud met them. They were barely an hour from Pisa when the oil gauge on one of the engines dropped to zero. There was no alternative but to land again. Ross Smith switched off the engine which was apparently faulty and flew close to

the ground to look for a suitable landing place. He finally landed at Venturina. At last luck was with them, for the fault was found to be in the gauge and not, as they had feared, in the lubricating system. In a few minutes they were off again, heading for Rome, and though they met more bad weather, they arrived there without incident.

After Rome they ran into still more bad weather, and Ross Smith needed all his skill and experience. Across the Apennines the clouds banked against the mountains; only occasionally was a peak visible. This was too dangerous, even for aviators who were willing to take almost any risk, and Ross Smith flew the Vimy below the clouds and followed the course of the valleys. Eventually they passed the mountains and reached Taranto.

After a night's rest they started for Suda Bay, in Crete. Still they could not escape bad weather. Rain and cloud forced them down to 800 feet over the open sea on the way to the island of Corfu and impeded them in their race to catch Poulet. Driving rain cut their exposed faces. After having sighted Corfu they flew down the coast of Greece.

This flight down the coast was one of the most dangerous of the trip. Ross Smith was forced to fly low, and on one occasion, after the Vimy had passed through a cloudbank, a rocky island

loomed out of the mist dead ahead. Only a quick, sharp, right-angled turn saved the aeroplane from disaster and its crew from probable death.

Then, for a short spell, their run of bad luck and bad weather ended, and they made good progress to Suda Bay. Here they gave the Vimy a particularly thorough overhaul, for next day they were to make an overseas flight of 250 miles, the longest they had yet been called upon to make.

### Danger on the Ground

THE fliers arrived, however, at Cairo without incident. But if the flight to Cairo had been uneventful, the news they received there was not. Two of their rivals, Lieutenants Douglas and Ross, had been killed at the start of their flight at Hounslow; and Poulet was in India. The Frenchman still held a big lead, but Ross Smith and his companions were within striking distance of him.

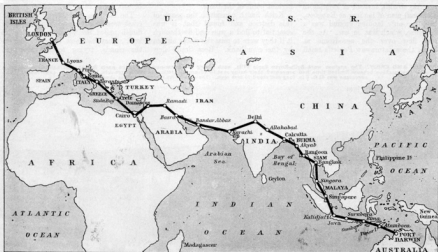
Despite reports from Palestine that weather conditions were unsuited for flying, Ross Smith decided that the day's delay at Pisa must be made up and they left for Baghdad.

It was now that Ross Smith's previous experience of the country proved to be so valuable. After the Vimy had passed over Nazareth the clouds forced Ross Smith to fly low, and he was able to follow the course of the valleys that

were familiar to him. The weather improved over the Sea of Galilee, and the fliers were glad to reach Damascus. From Damascus Ross Smith had planned to fly non-stop to Baghdad. Head winds, however, decreased their speed, and he realized that it was impossible to reach Baghdad before darkness. A landing place was found at Ramadi, which had been a desert battlefield in the Mesopotamia campaign during the war of 1914-18. Here they found the 10th Indian Lancers in camp and were able to obtain sufficient petrol to take them on to Basra without having to stop at Baghdad.

It was at Ramadi that they experienced one of the worst moments of the flight—not in the air but on the ground. While the aviators spent the night as the guests of the 10th Indian Lancers, the Vimy was pegged out on the desert. During the night the wind changed and blew at gale force on to the tail of the machine, which was in imminent danger of being blown over and smashed. Fifty men from the camp hung on to the aeroplane until the engine was started up and the Vimy put round into the wind.

The storm had eased up by the morning, but all the aileron wires were either strained or broken. It was noon before the fliers could leave for Basra. From Basra they flew 530 miles to Bandar Abbas, Persia (now Iran). One of the most dangerous stages of the flight now



THE ROUTE FOLLOWED in the first England-Australia flight. The fliers covered 11,135 miles during the journey, which took them twenty-seven days twenty hours. The total time spent in the air was 124 hours. Trying weather was experienced on the first section of the route from London to Cairo, but the worst storm occurred between Bangkok and Singapore, Siam.

lay ahead of them—from Bandar Abbas to Karachi, in India, a distance of 730 miles. It was not the distance itself that worried the fliers—the Vimy and her Rolls-Royce engines could manage that with ease; but for the most part this 730-mile stage was over treacherous country, away from civilization. As with the other stages of this Australian adventure, the danger and trouble rarely came when expected, and Karachi was reached safely.

At Karachi they heard that their rival, Poulet, was at Delhi, only a day's flight away. Since they had decreased his lead from thirty days to one day, it seemed certain that they would catch him either at Delhi or at Allahabad, but they reached Delhi to find that he had left that same morning for Allahabad. The temptation to continue without rest was strong, but Ross Smith and his crew were feeling the strain, and they stayed at Delhi until the next morning, when they left for Allahabad.

They reached Allahabad after one and a half hours' flying. As they circled over the aerodrome they looked down anxiously for any sign of Poulet's machine. They could not see it, and hoped that it might be in one of the hangars. When they landed they learnt that the elusive Frenchman had left that morning for Calcutta.

When they reached Calcutta they found that Poulet had not long left for Akyab, Burma. Ross Smith decided to go to Akyab also, instead of keeping to his original plan of landing at Rangoon, where the only landing ground was a racecourse, which was in use. As the Vimy flew over the aerodrome at Akyab, the aviators saw Poulet's small

Caudron on the ground. The Frenchman and his mechanic, Benoist, welcomed them. Poulet knew now that he could not be the first to reach Port Darwin, but this made no difference to his welcome. It was typical of their relationship that Poulet and the Vimy's crew agreed to take off together the next morning. The Vimy, however, was not ready in time and the Frenchman went on alone. An hour later Ross Smith took off, anxious to pass Poulet and to be the first aviator ever to have landed at Rangoon. The difference in the two machines can be appreciated from the fact that although Poulet left Akyab an hour before Ross Smith, the Australian arrived at Rangoon an hour before Poulet.

#### Through Clouds Over Mountains

AFTER Rangoon they had a respite from bad weather, but it was a brief one. They wanted good weather to help them over a 7,000-foot mountain range that lay across their route to Bangkok. After they had left Moulmein, Burma, they crossed the first part of the mountainous country. An enormous cloudbank hid the peaks from them. So long as the cloudbank persisted, the outlook was serious. This bank went down as low as 4,000 feet, but ahead of them, hidden by the bank, was the range of mountains that barred their way to Bangkok, and the summits of the peaks were 3,000 feet higher than the highest point of the bank.

Keith Smith studied the maps of this district and found that it was essential to find a pass and fly through it if they were to miss the peaks hidden by the cloudbank. Ross Smith flew

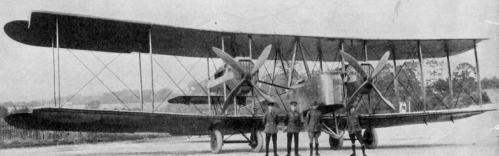
along a deep but narrow valley. The cliffs closed in on the Vimy and Ross Smith was worried that he would be trapped in a cul-de-sac. Unwilling to explore any more of the valley, he turned the Vimy about. Some idea of the narrowness of the pass can be appreciated from the fact that, although the span of the Vimy's planes was no more than some 68 feet, there was only just sufficient space in the pass to turn the Vimy.

Having failed to find the correct pass, Ross Smith and his brother decided to fly above the clouds at an altitude sufficiently high to clear the peaks. At 9,000 feet they emerged from the cloudbank, but ahead of them the clouds banked even higher. Ross Smith continued to climb until he reached their ceiling of 11,000 feet.

During this flight through the clouds, Ross Smith accidentally pushed forward one of his feet, which was on the rudder bar. This turned the Vimy off its course by ten degrees. To put the machine back on its course he kicked the rudder bar, but he put on too much rudder and found the compass needle swinging through an angle of forty-five degrees. He tried to correct the course, and saw that the air speed indicator registered over 100 miles an hour—or twenty-five miles an hour above normal flying speed. He had apparently pushed the Vimy's nose down, and he discovered from the inclinometer that he was flying at an angle of 30 degrees.

The machine was sideslipping and a crash seemed imminent. Quickly, Ross Smith pulled the Vimy on to an even keel. They had now been an hour in the clouds, trying to fly over the

**AIRCRAFT AND CREW.** The engines were Rolls-Royce Eagle VIII's, each giving 360 horse-power. Spare parts for engines and airframes were carried in the machine because limited time had prevented their being sent in advance. Little mechanical trouble, however, was experienced. The aeroplane was 42 ft. 2 in. long and stood 15 feet high. The span of its main planes was about 68 feet.



**THE TWO MECHANICS.** Sergeant Shiers, left, and Sergeant Bennett. Both these men had previously flown with Ross Smith on experimental flights from Cairo to Calcutta. Sergeant Bennett had some thrilling experiences during the flight. Once he had to scramble into the machine as it gathered speed for a take-off, and at another time he climbed out on to the tail of the machine to assist in a difficult landing.

mountain range. There was no way of telling whether they had crossed the range except by shutting off the engines and gliding down at about forty miles an hour. It was a bad few minutes for the crew of the Vimy, gliding down through the cloudbank, unable to see anything; Ross Smith and his brother watched the altimeter drop to 10,000 feet, 9,000 feet, then 8,000 feet. Still there was no sign of any peak.

Then the altimeter showed 7,000 feet—the height of the summit of the peaks. Now the fliers were alarmed, and waited for a crash. Suddenly, they flew past a hole in the clouds, through which they saw a patch of green country. They flew down to 4,000 feet and concluded that they must have crossed the range. After one of the most anxious periods of the flight they landed at Don Muang, twelve miles from Bangkok, Siam. Ross Smith had intended to fly from Bangkok to Singapore direct, but when he learned that the aerodrome was good at Singora, Siam, halfway to Singapore, where there should be 500 gallons of petrol waiting for him, he decided to break the journey there.

For the first hour after they left Bangkok, the aviators had fine weather, then they were again impeded by low clouds, which forced the Vimy down to within 1,000 feet of the sea. Ahead the fliers saw an ominous rain cloud which was so dense that it was imperative for the aeroplane to fly over the sea. Rain fell heavily. Goggles were useless, and the aviators' eyes were struck by rain that hit them with the force of a hailstorm.

Conditions became so bad that Ross Smith was forced to rest from the ninety miles an hour storm and he handed the controls to his brother until Keith Smith himself could hold out no longer. This alternate piloting of the Vimy went on for three hours. During that period, and while Ross Smith was at the controls, a hill loomed out of the storm and he had to make a sudden, sharp climbing turn out to sea to avoid it. In his account of the flight Ross Smith described these particular weather conditions as the worst in his experience.

An hour before they reached Singora the storm was over, but even then misfortune befell them. Half of the aerodrome at Singora was covered with



water from the great storm. The other half was covered with tree stumps. There was no alternative but to land on that portion covered by the stumps. Somehow, Ross Smith brought the Vimy down across the stumps with no worse damage than a broken tail-skid.

The fliers were delayed still further at Singora. There was now no fear of Ponlet, unless they failed at any stage to fly any farther, but their great anxiety was to reach Port Darwin within the specified time.

#### Landing on a Racecourse

THE delay at Singora was caused when Ross Smith found that there was only 500 litres of petrol—for Ponlet—instead of 500 gallons for himself. Extra supplies were sent to the aerodrome before the Vimy took off for Singapore.

The flight to Singapore was uneventful, but there was a serious risk when they landed. The only landing ground at Singapore then was the racecourse, which was too small for the Vimy. The resourceful Sergeant Bennett once again showed his ingenuity and his bravery. As the Vimy flew over the racecourse he clambered out of the

cockpit and slid along the top of the fuselage down to the tailplane. His weight caused the tail to drop quickly, and when the Vimy landed on the racecourse Ross Smith was able to pull it up after a run of only a hundred yards.

Ross Smith and his crew arrived at Singapore on December 4, and thus they had eight days left in which to reach Port Darwin within the scheduled time. Although their task was nearly done (that is, by comparison with the distance they had already flown from Hounslow), they still had 2,500 miles to fly, and over that 2,500 miles Ross Smith knew of only five places at the most where they could land. The rest of the country was jungle, mountain or swamp. A single forced landing would have ruined the flight, when they were in sight of success.

Even before they reached the uncharted country they almost met with disaster. It was equally difficult to take off from the Singapore racecourse as it had been to land; and the situation was worse because of heavy overnight rain. Ross Smith taxied the Vimy into a position that would give it the maximum run, and he opened the throttle. The Vimy did not rise, but

made straight for the rails that surrounded the racecourse. Not until the aeroplane was within fifty yards of the rails did it lift from the sodden ground and clear the rails by a few feet.

Nine hours after Ross Smith and his crew had left Singapore, they landed at Kalidjati, Java, 650 miles away. Here they learnt that the Dutch Government had built extra aerodromes for them between Java and Australia. From Kalidjati they left for Surabaya, Java, where they met with further delay.

This delay was caused by the old trouble of bad landing surfaces. Long-distance fliers are not now troubled by bad landing grounds, but in 1919 many aerodromes and flying fields were either only temporary, wartime affairs, or were in the process of reconstruction. The

landing ground at Surabaya had been built on land reclaimed from the sea. As soon as the Vimy landed there it was bogged.

It took two hours to raise the wheels and to place bamboo matting under them. Ross Smith believed that the other side of the landing ground was firmer, and he decided to taxi over; but once more the Vimy sank. Finally, 200 coolies pulled it across over a path of bamboo matting.

This involved six hours' work, and two tyres were punctured by nails in the mats. After these six hours in the tropical sun, Ross Smith and his crew had to work by the light of a motor-car lamp to mend the punctures, overhaul the engines and refill with oil and petrol. They had scarcely finished their

work when one of the wheels, which was jacked up, sank again. They went to jack up the other wheel, and that, too, sank into the mud.

For perhaps the first time on the flight they lost hope. It looked now as if they would be days before they left Surabaya—and yet they were only 1,200 miles from Port Darwin. If they could not get the Vimy off the ground at Surabaya there was no question of its being done elsewhere, for Ross Smith knew that this was the only stretch of flat ground within 400 miles. It was Keith Smith who saved the situation. He suggested a roadway of bamboo mats, which would give the Vimy a firm runway.

When the aviators came on to the flying field the next morning they were cheered by the sight of the road of mats. The engines were started up, but the slipstream from the propellers swept many of the mats away. The Vimy ran off the mats and was bogged again.

Once more the natives and the Vimy's crew dug deep down and raised the wheels; this time planks of timber were placed as supports. A road was made 300 yards long and 40 feet wide. The ends of the mats were pegged down and the mats themselves interlaced. Twenty-four hours after the Vimy had arrived, it left Surabaya for Bima, on the island of Sumbawa.

At Bima they were impatient to be off and to complete their triumph, but a heavy mist prevented them from making an early start. They ultimately left at midday for the last 470 miles across the Arafura Sea. This crossing was the longest overseas crossing they had made, and they tied to the tail of the Vimy a parcel of food, a bottle of water, the Very pistol, and some cartridges. The tail generally sinks last if a crash is made in water.

The fliers were a little uneasy at being out of sight of land for five hours, but in his account of the trip Ross Smith said that they found confidence in the fact that Aloock and Brown, in a similar machine, had flown nearly 2,000 miles across the North Atlantic, and by the fact that H.M.A.S. *Sydney* was patrolling the sea, keeping watch.

The flight was successfully accomplished and at six minutes past two they sighted Bathurst Island Lighthouse. At three o'clock they landed in Australia on December 10, 27 days 20 hours after having left Hounslow.

**IN FLIGHT ABOVE THE CLOUDS** over Sydney, where the fliers proceeded after they had completed their journey to Port Darwin. In spite of the few aids to blind flying available in 1919, considerable periods of flight, entirely in clouds, were successfully negotiated by Ross Smith between England and Australia.