

Conquering distance

KINGSFORD SMITH AND THE FIRST TRANS-PACIFIC FLIGHT, 1928

Over 120 Boeing 747 non-stop air services fly to or from Australia and California, USA each week, and the flight takes around 14 hours. Over 30,000 people per week take the flight for granted, if a little long and cramped. Most flights to America depart from Sydney's Kingsford Smith Airport.

The ninth of June 2008 marks the 80th anniversary of the first flight between America and Australia. Charles Kingsford Smith ('Smithy') and his crew (Charles Ulm, James Warner, and Harry Lyon) completed the 11,585 kilometre crossing in the *Southern Cross* in a flying time of 83 hours and 50 minutes between 31 May and 9 June 1928, stopping to refuel and rest in Hawaii and Fiji. The plane flew at an average speed of only 138 kilometres an hour.

Their flight was a worldwide sensation, and was the most celebrated of Smithy's 23 major record-breaking attempts. Anthony Fokker, the designer and builder of the *Southern Cross* and many other aircraft, wrote in 1931:

Kingsford Smith I regard as the greatest flyer in the world today ... a great commander as well as a flyer. He is the best organizer for success I know, and has the most courage of any airman I have met ... a man not to be downed no matter what the odds pitted against him.

Smithy became an Australian legend, a hero like Neil Armstrong after he became the first man to walk on the moon. He was seen as an adventurer, a brave daredevil who thrilled the public with his death-defying heroics and ability to undergo extraordinary physical rigours. In reality, Smithy and his co-pilot Ulm were extremely cautious. Their America to Australia flight in 1928 was designed to test the viability of commercial air services on this route. The fliers planned the trip carefully to achieve a high 'margin of safety'.

The crew of the *Southern Cross* and well-wishers before taking off from Los Angeles, California, 23 May 1928.
Photo courtesy of the National Library of Australia, image number vn3930809



Born in Brisbane in 1897, Smithy enlisted in the Australian Imperial Force in 1915 and served on Gallipoli, Egypt and France before he transferred to the Australian Flying Corps in 1916. In March 1917, after pilot training in England, he was appointed a flying officer in the Royal Flying Corps. Smithy shot down four enemy planes before being shot down and wounded himself in August 1917. He had survived six weeks as a combat pilot, and was only one of three pilots remaining of the 16 he had started with. He was awarded the Military Cross 'for conspicuous gallantry and devotion to duty'; and became a Lieutenant and a Royal Flying Corps instructor.

Smithy's six weeks in action as a pilot, and his survival against the odds, began his lifetime obsession with flying. His survival may have given him some sense of invincibility, a feeling that he had some special mastery of the new aerial machines. He later said that it was during his war service that he got the idea of flying across the Pacific. He kept flying after the war ended.

His first famous record-breaking flight was around Australia in June 1927 in ten days and five and a quarter hours. But the big prize was the across the Pacific route, regarded as impossible at the time. Flying across land made navigation easy and emergency landings were a possibility. Long ocean flights were far more difficult – and dangerous. The American aviator Charles Lindbergh became world famous after his solo non-stop flight in a single-engine plane – the *Spirit of St Louis* – from America to Paris in May 1927, flying 5631 kilometres in 33½ hours. Lindbergh became an instant celebrity on a scale never before experienced, touring 92 American cities in 49 states.

Smithy and Ulm arrived in San Francisco on 5 August 1927 to plan for a trans-Pacific flight. With Lindbergh's flight still the model for across-ocean flying, they decided to use the same type of single-engine plane as he had, and to fly it to Honolulu. They then planned to fit floats to the aircraft and 'island hop' to Australia via Fanning and Phoenix Islands and others.

Soon after Smithy and Ulm arrived in San Francisco, seven flyers in three aircraft disappeared in the Dole air race to Hawaii. Long distance flying across the Pacific was viewed, Smithy said, as 'suicide or at least a reckless flirting with death'. After the Dole air race fiasco the New South Wales government withdrew its promised grant for their flight. Other people would have given up, but Smithy and Ulm persisted. Sidney Myer (of department store fame) gave them £1500, but this was not nearly enough. After the Dole air race debacle, Myer said they could keep the money, but he did not



The *Southern Cross* crew garlanded with leis in Hawaii.
Photo courtesy of the National Library of Australia, image number vn3930683



Local people inspect the *Southern Cross* in Suva, Fiji.
Photo courtesy of the National Library of Australia, image number vn3930966

want them to attempt the flight to Australia because it was too risky. Rear Admiral Peables of the United States Navy was spending hundreds of thousands of dollars searching for the lost Dole air race fliers, and wanted nothing to do with the proposed flight. He told Smithy and Ulm that they were crazy. Cables arrived from Australian newspapers and the Australian government, pleading with them not to undertake the flight. Only the RSL told them to 'keep on keeping on'. Other people would have given up on the project, but Smithy and Ulm persisted.

An Australian explorer, George Hubert Wilkins, had a Fokker Trimotor FV11b/3m that had crashed in Alaska. He offered it to Smithy and Ulm, minus motors, at an attractive price. Smithy equipped the Fokker with three new American-built Wright Whirlwind radial engines. The plane had a 19.8 metre wing span and was referred to at the time as 'the giant Fokker monoplane'. The plane was named the *Southern Cross*: to Smithy, it was 'the Old Bus'. The United States Army had flown a three-engine Fokker similar to the *Southern Cross* and equipped with the same reliable Wright Whirlwind engines from California to Hawaii in June 1927 without problems. Lindbergh had also used the engine in his plane on his record-setting transatlantic flight.

Smithy and Ulm tried to raise money from potential sponsors but made little progress. Then they were introduced to a reticent American shipping and oil magnate, Captain Allan Hancock, and he agreed to help finance the flight. Soon Captain Harry Lyon joined the crew as navigator, along with Jim Warner as radio operator. Both had extensive experience in sea navigation; both were American. The plane would have the best navigation and radio equipment available, including four compasses and a marine sextant and three radios.

Smithy and Ulm underwent gruelling training for the flight. They would drive a motor car for 12 or 15 hours, then fly for three or four hours, then run for an hour or two, then fly some more and then drive a car once more for a total of 35 or 40 hours on end until, as they said, the 'human element' would not 'let us down'.

The Americans never tried to detract from Smithy and Ulm's brilliant achievement. The flight's official log records that Harry Lyon and Jim Warner wanted to have Smithy made President of the United States because of his flying skills in stormy weather. The United States Navy and Army helped extensively during the flight. In Hawaii, for example, eight United States Army mechanics checked the three motors in detail.

In January 1928, Smithy and George Pond made five attempts on the record for the longest non-stop flight around California in the *Southern Cross*. They failed to break the record, but gained valuable experience in flying the aircraft with a heavy fuel load, meaning that it had to take off with a weight far above its designer's limits. They learned how to cope with staying airborne for around 50 hours non-stop on the last two attempts. This was an incredible feat, far longer than any of the legs on the proposed Pacific flight.

Smithy and Ulm prepared the *Southern Cross* for the flight across the Pacific. The plywood and fabric frame was strengthened and the undercarriage reinforced to carry the heavy fuel load and cope with rough landing grounds. The large additional fuel tank was placed in the cabin, with the result that the pilots, Smithy and Ulm, could not move to the area where the navigator and radio operator sat. The noise of the motors was so loud that any communication between the crew had to be by written notes. There were no formal toilet facilities, and the food was sandwiches and coffee from a thermos. All crew members smoked heavily, but smoking was banned because of the fire risk.

The plane took off from Oakland, California on 31 May 1928 on the first leg to Hawaii, a flight that lasted 27 hours and 25 minutes. Smithy was confident. At 31, he had 3300 flying hours, and had flown a wide variety of aircraft. The *Southern Cross* would be the fifth aircraft to travel from the United States to Hawaii, but no one had crossed the vast distance from there onwards to Fiji and Australia by air. Ulm flew the plane for 30 hours of the 83-hour flight, but he was not a qualified pilot. Smithy was probably at the controls at the critical times of takeoff and landing, during storms, and at night when they were flying blind, relying totally on instruments. The flight attracted worldwide interest. Warner, the radio operator, sent out many reports. When he asked a ship below what stories were leading the world news he was surprised to hear the reply, 'You are'.

Smithy and his crew must have felt terribly alone; they could expect no help if disaster struck. After leaving Hawaii, and far from any land, one of the engines started 'coughing and sputtering'. This continued for eight anxious minutes. Apart from this incident, probably caused by some dirt in the fuel, the engines performed magnificently despite the fact that they were exposed to heavy tropical downpours. Their constant worry was running out of petrol. Frequent storms meant much climbing to get above the clouds, using up fuel. They were never sure how much they had left.

The flight between Hawaii and Suva was the most challenging. There were many severe storms, but the 5050 kilometre flight was completed in 34½ hours, the longest non-stop ocean flight on record at that time. A very enthusiastic welcome greeted the *Southern Cross* and its crew at Suva. Officials declared a public holiday and crowds came out to see Smithy land the *Southern Cross* on a small sports oval – a famously skilful piece of flying. The roar of the engines on the long flight had made the crew deaf. Fijians, many of whom had never seen a plane before, let alone a large plane like the *Southern Cross*, composed ballads lauding the 'bird ship'. Warner slept in a Naselai village and was initiated into the tribe. The plane took off after the crew drank Yangonga supplied by Fijian maidens.

The flight from Fiji to Brisbane was the shortest of the three legs, but severe storms meant that two and a half hours of it were the worst of the entire crossing. Water seeped through the windshield and Smithy and Ulm were drenched. They had to climb to 2750 metres to try to avoid one storm. The plane was not pressurised or heated and the crew almost froze. Stormy conditions made the plane suddenly drop over 100 metres; Smithy and Ulm both had to man the controls

to keep the plane from plunging into the ocean. Their cane seats were not secured to the floor and neither did they wear seatbelts, so they were thrown about the cabin. The *Southern Cross* arrived at the Australian coast at Ballina, 177 kilometres south of Brisbane. The flight from Fiji had taken 20 hours.

The crew and the *Southern Cross* met an astonishing reception at Brisbane. A crowd of 15,000 had gathered at the airport on 9 June 1928. Police had to force them back to avoid the danger of being decapitated by the propellers. One policeman uttered the now famous words, 'Get back. Get back. This is no ordinary aeroplane.' Smithy's first words on leaving the plane were, 'Hello Aussies – my kingdom for a smoke'.

Their arrival at Sydney airport on Sunday 10 June was even more impressive. A crowd of about 300,000 had gathered at what is now Kingsford Smith Airport. There were many official welcomes, and Smithy and Ulm received over £20,000 in cash, as well as aeronautical awards. The *Southern Cross* would go on to make another eight record attempts. This grand survivor is on permanent display at Brisbane Airport, close to the suburb of Hamilton where Smithy was born in 1897. Jim Warner and Harry Lyon came to Australia as guests of honour in 1958, on the thirtieth anniversary of their epic flight.

While Smithy and Ulm were skilled professional fliers who took every precaution, their relentless flying escapades in pursuit of new records exposed them to perhaps inevitable danger in the still primitive aircraft and navigation systems of the time. The trimotor *Southern Cross* had become too slow for breaking records. The public wanted their aviation heroes to brave the elements in fast and sleek single-engine machines. In December 1934, Ulm (then aged 36) and two companions disappeared on a flight between San Francisco and Hawaii, flying the single-engine *Stella Australis*. They were trying to set a new America-to-Australia record. His friend's death devastated Smithy.

Smithy, now Sir Charles Kingsford Smith (he was knighted in 1932) kept up a hectic flying life until he and his co-pilot disappeared in a single-engine plane, the *Lady Southern Cross*, in the Andaman Sea off Burma on 8 November 1935. He was attempting to break the record for the England-to-Australia flight. Smithy was 38 years old and was aware of the risks: he used to say death was awaiting him on every flight. He remains an Australian hero.

An exhibition on Kingsford Smith and the first trans-Pacific flight will be on display in the Hall in June.

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The conquerors of the Pacific by air: Jim Warner, Charles Ulm, Charles Kingsford Smith and Harry Lyon, at their welcome in Sydney, 10 June 1928. Photo courtesy of the National Library of Australia, image number vn3930738