



Double Sunrise flights

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With the fall of Singapore in February 1942, the air route between Australia and Britain was severed, preventing the rapid movement of VIP passengers and government mail between the two countries. In early 1943, the British and Australian governments agreed that British Overseas Airways Corporation (BOAC) would conduct an air service between Britain and Karachi, while the Australian airline Qantas would pioneer a new route from Ceylon (now Sri Lanka) to Australia using Catalina flying boats. These latter flights, which became famous as 'Double Sunrise' flights (because crew and passengers often saw two sunrises during the 24-hour plus spent in the air), were the longest commercial air service in the world at the time. Less well-known is the RAAF support that made these flights possible.

To avoid all areas controlled by Japanese forces, the route over the Indian Ocean was selected. As the Cocos Islands were within range of Japanese aircraft, they were considered unsuitable as a refuelling stop. Original planning had the route going from Exmouth Gulf, near RAAF Learmonth, to RAF Trincomalee in Ceylon, which was the shortest route and would have allowed the greatest payload to be

carried. However, with the heavy weights that were necessary, take-offs were only possible from smooth water, so the route from Swan River in Perth, direct to Lake Koggala in Ceylon, was chosen. This distance was 22 per cent longer than the next-longest commercial air route, which was from Montreal in Canada, across the Atlantic Ocean to Scotland.

RAAF Catalina aircraft were fully committed to flying bombing and reconnaissance missions against the Japanese. However, Qantas had spare aircrews that were experienced in pre-war flying boat operations on the route to Singapore. The British Government made available Catalina aircraft that were stripped of defensive weapons, de-icing equipment, oxygen system and all cabin insulation that were unnecessary, to save weight. To make the 8789km journey, additional fuel tanks were fitted in the fuselage, so that with full tanks, a couple of passengers and some mail, the aircraft's take-off weight was 35,000 pounds – 6000 pounds (2.7 tonnes) above normal. The loss of an engine in the first 10 hours would necessitate a forced landing in mid-ocean, with little chance of rescue.



*A map displaying the Double Sunrise flight path.
Credit: Department of Defence*

The first of the Double Sunrise flights departed Perth on 29 June 1943, flown by Captain Russell Tapp, an experienced Qantas flying boat captain, and Senior First Officer Rex Senior.



*Crew of the first Double Sunrise flight on 2 July 1943.
Credit: Department of Defence*

Rex had joined the RAAF in 1940 as a member of the first Empire Air Training Scheme pilots' course. After an operational tour on Sunderland flying boats with No 10 Squadron in the United Kingdom, he was posted to No 2 Air Navigation School at Nhill, Victoria, where he qualified as an astro-navigator. In early 1943, he volunteered for discharge so that he could take up a position on flying boats

with Qantas, where he remained until after the war.



Rex Senior's Pilot wings and Hat badge

Credit: Department of Defence

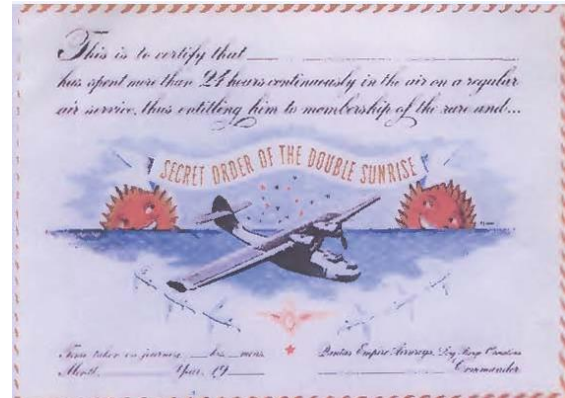
Qantas's only international route before the war was from Darwin to Singapore, which was largely flown in daylight hours following the island chain through the Dutch East Indies (now Indonesia). The Double Sunrise route was quite different. To prevent interception by Japanese aircraft, the Qantas aircraft flew the mid-ocean part of the route at night and operated the whole flight in radio silence. Navigating by the stars was the only practicable means of accurately guiding the aircraft under these conditions. Many RAAF aircrew experienced in long oceanic flights over the Atlantic or Pacific Oceans were ideal for the Double Sunrise service. On the first few flights, the co-pilots (such as Rex Senior) did the navigating, but within a few months, the RAAF seconded more than eight navigators to Qantas, as well as a number of pilots experienced on flying boats. Despite being employed by Qantas, all crew on the Double Sunrise flights were members of the RAAF Reserve and wore RAAF flying suits over their Qantas uniforms.

Supplying aircrew was not the only support the RAAF provided. As Qantas had not operated Catalina aircraft before, the aircrew for these flights were trained at No 3 Operational Training Unit, the Catalina training unit at RAAF Base Rathmines, located on Lake Macquarie, NSW. The Pratt and Whitney Twin Wasp engines from the Qantas Catalinas were overhauled at No 4 Aircraft Depot workshops at Boulder, near Kalgoorlie in Western Australia, alongside RAAF Catalina engines.

To fly an overwater air service of that length without accurate meteorological forecasts would have been a disaster. Forecasting for the air route from Perth to Ceylon was complicated by the fact that it stretched over two hemispheres and included both tropical and temperate regions (both with completely different weather patterns). Three RAAF meteorological officers, led by Squadron Leader John Hogan, maintained an around-the-clock service in Perth to provide the most accurate wind and weather forecasts possible at that time.

Later, when Qantas obtained C-87 Liberators for the Australia-to-Ceylon service, the days of the Double Sunrise flights were numbered. The faster, more comfortable Liberator could do the trip in 10 hours less than the Catalina, and carry more than four times the payload. On 17 July 1945, the last Catalina service took off from Lake Koggala for Perth. After having made 271 crossings of the Indian Ocean without loss, the era of the Double Sunrise flights had come to a close. The

Double Sunrise crews had carried 648 passengers and 18 tonnes of mail and priority cargo in defiance of the Japanese attempts to blockade the country.



Double Sunrise flight certificate.
Credit: Department of Defence

The experience gained by Qantas in the Double Sunrise flights allowed the company to restart the major air routes that linked Australia with the world immediately after the war. This included pioneering the Pacific route to Hawaii and San Francisco. The flights were also invaluable to Australia, providing a fast, secure link to its major ally: Britain. By combining the strengths and resources of the RAAF and a commercial airline, a vital air service was established and maintained. It was a great example of an air force supporting an airline to carry out a strategically important task.

- *With RAAF's support and expertise, Qantas successfully operated the longest commercial air route in the world under wartime conditions.*
- *RAAF and Qantas combined resources to carry out a task that neither could have achieved on their own.*

- *National air power maintained this international link that was essential to the allied war effort.*

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