

THE CRASH OF KYEEMA



It is 60 years since the Kyeema crashed into the side of Mt Dandenong, killing all 18 aboard. The crash and the subsequent inquiry changed the nature of civil aviation in Australia.

TUESDAY, 25 OCTOBER 1938 WAS TO become a milestone in Australia's civil aviation development.

On that day, a 14 passenger DC-2, VH-UYC Kyeema, was scheduled for ANA services from Melbourne to Adelaide and return. Rostered for the flight were Captain AC Webb and First Officer AJ Steen, Hostess Elva Jones and cadet pilot Phillip Pring.

After an early departure from a grey and overcast Melbourne, the 2 1/2 hour flight to Adelaide was uneventful, except for a minor technical problem with the aircraft's radio receiver. The radio receiver was changed, and the aircraft was soon ready for the return trip to Melbourne.

The 14 passengers booked for that leg included a member of Federal Parliament, Mr CA Hawker MHR, who was on his way to Canberra from his South Australian electorate.

Pausing while its engines were run up in turn, Kyeema then turned slowly into wind, its engines roared as both throttles were opened for take-off, and it surged forward, gathering speed. Within seconds, the aeroplane lifted off the ground, the undercarriage retracted, and it climbed away. It was 10.55am, South Australian time.

At around 1.30pm, Essendon aerodrome radio operator, Bill Lauder-Cridge, pushed the headphones back from his ears. He was glad for a moment's respite; he had been on duty since 7am.

A few minutes later the call he was expecting crackled in his headphones. It was Kyeema, making its second call to him on its morning service from Adelaide. The first had been half an hour before, when the DC2 reported 20 miles south of St Arnaud at 11,000ft. Its estimated time of arrival (ETA) Essendon was 1.45pm.

"Kyeema calling Essendon. Passing Dayles-

ford, altitude 7,000ft, course 110 degrees". The voice transmission, a little nervous and stilted, was not from Webb or Steen. It was the young ANA cadet, Philip Pring.

Lauder-Cridge read the latest Essendon observation: overcast cloud at 1,500ft in the Melbourne area, extending to 4,000ft. Beneath it was a broken layer at 800ft. The wind was a light southerly. He added, "There's a few breaks now towards the south – down over the bay".

"Weather received OK", Webb replied. "We may require a bearing from you later. We're about to enter the overcast at 4,000ft."

There was a short interval, then Ansett's Lockheed 10 VH-UZO, en-route to Essendon from Hamilton, called with a position report at Lake Bolac. Its signal was strong and it jammed a further transmission from Kyeema.

As soon as he was finished with the Ansett aircraft, Lauder-Cridge called the DC-2 again: "Did you call for a bearing? I was working Ansett's Lockheed".

“...the aircraft was burning fiercely, the intense heat preventing the men from getting close.”

"Yes", Kyeema replied. "What is your barometer, please?" "Barometer 29.88", Lauder-Cridge responded. "If you want a bearing, keep your transmitter on."

The DC-2 acknowledged the call but didn't leave its transmitter on.

By 1.59pm there was still no sign of Kyeema. A little uneasy, Lauder-Cridge called the DC-2 again: "Kyeema, what is your position? Transmit while I take a bearing."

A minute later, ANA's DC-3, Kurana, inbound from Sydney, called with a position report. "Where's Kyeema?" its crew asked.

Lauder-Cridge asked them to try calling the DC-2 themselves. Again there was no reply.

Concerned, he picked up the telephone that provided a direct line to the control tower. "We've lost contact with Kyeema", Lauder-Cridge reported.

An appalling sight: Around 1.45pm, in the quietness of the fog-enshrouded bush, Bob Logan and Tom Murphy were clearing undergrowth from the side of Ridge Road on Mt Dandenong. They became aware of the distant whine of an aeroplane; the sound was coming from the west, roughly in the direction of Melbourne. And it seemed to be getting louder.

The noise continued to grow in intensity; it wasn't just a whine now – they could hear the powerful throb of the engines as well.

Suddenly the noise of the engines and propellers was overlaid by a loud screeching; an instant later there was the sound of smashing metal, then came a tremendous explosion which shook the ground beneath their feet.

The two men ran in the direction of the crash. Fifty yards ahead, just a little way down the steep slope, they saw great orange flames leaping up into the trees, as clouds of black smoke billowed into the fog.

It was an appalling sight. Except for the tail, and the wing sections that had been sheared off by the trees, the aircraft was burning fiercely, the intense heat preventing the men from getting close.

They could see where the aeroplane had lopped off the tree-tops before the wings had been torn from the fuselage, and it had shattered itself against the mountainside. There were no survivors.

Public inquiry: News of the tragedy shocked the nation more profoundly than any previous air accident. The air accidents investigation committee began its formal public inquiry in the Melbourne exhibition buildings 3 days after the accident.

It established that the DC-2 VH-UYC Kyeema had departed Parafield at 11.22am Eastern Standard Time. Its flight planned ETA at Essendon was 1.45pm. The Inquiry was satisfied that the aircraft was in all respects airworthy.

Weather conditions over the route were excellent for the most of the trip; during this time the aircraft maintained visual contact with the ground. In the Melbourne area, however, within a radius of 40 miles from Essendon, the sky was overcast by a layer of cloud extending from 1,500ft to 4,500ft. Below this primary layer there was about eight tenths of broken cloud with a base of about 800ft. The wind was a light southerly.

While letting down from cruising level in cloud, Kyeema had passed to the north of Essendon aerodrome and continued on the same heading until it crashed into Mt Dandenong. From the Essendon radio operator's log the aircraft's clock and a charred pocket watch found in the wreckage, the time of the crash could be fixed as 1.45pm – the crew's flight planned ETA for Essendon.

The aircraft had overshot Essendon and let down into the mountain at the very time the crew were expecting to break out of cloud over the airfield. Yet Mt Dandenong was 20 miles beyond Essendon. How could an expe-

rienced crew have made such a gross navigational error?

An analysis of the DC-2's flight times and position reports showed that a navigational discrepancy had occurred during the latter part of the trip. From reports transmitted abeam Lake Hindmarsh at 12.33pm and St Arnaud at 1.04pm while the aircraft was cruising at 11,000ft, it was evident that the DC-2 was maintaining a ground speed of 177mph.

On this basis, it would have been due over Daylesford at 1.25pm – or even earlier if the crew commenced descent before reaching

Daylesford. But the "passing Daylesford" report was not transmitted until 7 minutes later at 1.32pm, when the aircraft's height

was reported as 7,000ft. Evidently on descent at this stage, its ground speed would have been higher than earlier and, in the 7 minutes that had elapsed since the aircraft's ETA Daylesford, it would have flown at least a further 21 miles.

Inaccurate log: It appeared to the inquiry that the position report had probably been given when the aircraft was actually over Sunbury or Gisborne – townships 20 miles closer to Essendon than Daylesford.

The inquiry found that the crew failed to keep an accurate log of the aircraft's time intervals and ground speeds between reporting points. Without a correct reporting point ETA to prompt them, the crew apparently missed sighting the real Daylesford. This set the stage for the misinterpretation of their position after the aircraft encountered cloud several minutes later.

Out of the inquiry's recommendations would come immediate action to equip Australia's airways network with a chain of efficient radio ranges that would give instant and accurate navigational information to aircraft crews.

A flight checking system was also set up, heralding the birth of Australia's system of air traffic control.

But perhaps most significantly, the report of the Kyeema inquiry would finally seal the fate of the old Civil Aviation Board as a subsidiary of the Department of Defence. For the first time, the role being played by civil aviation, and its importance to the life of the nation, was to be accorded the official government recognition it now deserved with the establishment of the Department of Civil Aviation.

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50 years ago - 1948

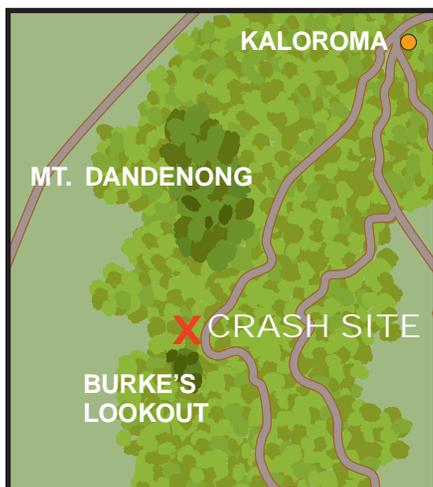
Crash of the Lutana: On a flight from Sydney to Brisbane, Australian National Airways Pty Ltd Douglas DC-3 Lutana was reported missing. Two days later, burnt wreckage was found near Quirindi, NSW. The pilot, Captain JA Drummond was found to be a "pilot of more than ordinary ability". An inquiry into the cause of the crash was carried out and this sparked discussion to create an independent air accident committee other than the Department of Civil Aviation. Similarly, recommendations were made to improve safety procedures including proposals for an improved flight control system.

Following the Lutana accident the findings of the inquiry were released on 17 November, 1948 which led to a major shake-up of the Department's air traffic control system.

Migration by air: A cut rate service was offered from Puerto Rico to New York. For US\$75 one way, in a DC-4, with increased seating from 40 to 63 passengers. Passengers sacrificed the luxury of an in-flight meal, with the service of 1 flight attendant to New York. Sales skyrocketed and within 10 years, New York's population of Puerto Ricans increased from 70,000 to 250,000. The world's first "migration by air".

25 years ago - 1973

First Concorde flight: The first production BAe/Aerospatiale Concorde flew on 6 December 1973. The Concorde caused more controversy than any other civil aeroplane, but with a cruising speed of Mach 2.2, it cut the North Atlantic crossing to less than 3¹/₂ hours. It is still the only supersonic civil transport aircraft in service, the Tu-144 having been withdrawn after only a short operational life.



The Kyeema plowed into the base of Mt. Dandenong at the time the crew expected to let down at Essendon airport.

