

## CASE STUDY: Stinson Cyclone, 17<sup>th</sup> -21<sup>st</sup> February 1937

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An intense cyclone approached the Queensland Coast from The New Hebrides (Vanuatu) and moved south to the NSW coast.

- The ocean vessel, *Babinda*, was caught off Double Island Point on Friday the 19th. Her intermediate propeller shaft broke, and in response to her S.O.S. she was towed to Brisbane. Her crew said it was the worst weather they had ever encountered. There were two crew injured.
- The Stinson Mail aeroplane, *City of Brisbane*, crashed on the Lamington Plateau on the 19<sup>th</sup>. Conditions then near the crash site on Lamington Plateau were southerly winds strong enough to blow down quite a number of large trees. Five people died and two were found and rescued by bushman Bernard O'Reilly which is part of Australian folk lore.
- At Woolgoolga the jetty was wrecked by large waves on 19 and 20 February.
- At Byron Bay the pier was damaged.
- Big seas swept over the breakwater at Coffs Harbour and a section of the eastern wall was washed away.
- A boy was swept off a rock at Bondi on Sunday 21<sup>st</sup> and was drowned. There were many rescues by lifesavers over the weekend along the NSW coast.
- The liner *Taiping* reached *Sydney* from Brisbane on 21<sup>st</sup> the Captain stated that the vessel encountered the worst conditions he has experienced with winds up 78knots. Two passengers and a sailor were seriously injured.

### **Airlines of Australia Stinson monoplane, City of Brisbane**

Conditions at Archerfield (then Brisbane's main air terminal) that Friday (19 February 1937) were wet and unpleasant, but not bad enough to prevent the Airlines of Australia Stinson monoplane, City of Brisbane, leaving on its regular run to Sydney at 1 p.m. Like many planes at that time, it carried no radio. The cyclone was bringing southerly winds into southeast Queensland and under these conditions Brisbane gets a great deal of protection from the Macpherson Ranges to the south. It is not unusual to see storm force southerly winds in Moreton Bay with much lighter southerly winds over Brisbane.

In those days it was for the pilot to decide whether he took off or not, and on this run there were two possible routes. The safer, bad weather route was along the coast. The other, and normal route, lay inland through Lismore and entailed crossing the McPherson Ranges in the region of the Lamington Plateau, a 2,000 foot high maze of ridges and mountain gorges, with isolated peaks rising to more than 3,700 feet.

As the Stinson took off the Lamington Plateau was being pounded by heavy gales coming from the cyclonic disturbance, but there was no weather station in the area to advise Archerfield of this.

Binstead, the passenger, recalled that about forty minutes after leaving Archerfield they "struck a patch of bad weather over the ranges." The pilot was trying to bank and climb, but there were down currents of the gale coming over the top of a gorge and these were forcing the plane down. Binstead

glanced out of the window and noticed the trees. They seemed to be quite close. The plane banked to starboard and then, suddenly, came the crash. The plane chopped through the top of a tall tree, ploughed into a second about thirty feet up, and crashed down through the branches onto the ground. One wing was torn off and fell about a chain away, one propeller was smashed off, and in the fall through the trees the rudder was carried away.

From the Coroner's report <http://www.archives.qld.gov.au/research/stinson.asp>

#### **Witness statement made by Francis Edward Buchanan**

Witness statement by Francis Edward Buchanan- A licensed pilot and Beaudesert resident whom recounts his search for wreckage, opinion of flight path, and local weather conditions.

His assessment of the conditions near the crash site were southerly winds and they were strong enough to blow down quite a number of big trees on the mountains.

#### **Mean Sea Level Analyses**

The analyses in Figure 2 shows the cyclone move south into a developing high pressure area over the Tasman Sea which increased the pressure gradient over large areas south of the centre of the cyclones. Therefore the conditions were worsening on the Macpherson Ranges as the Stinson took off. Additionally the large pressure gradient developing east of the NSW coast accounted for the severe wave conditions along that coast.

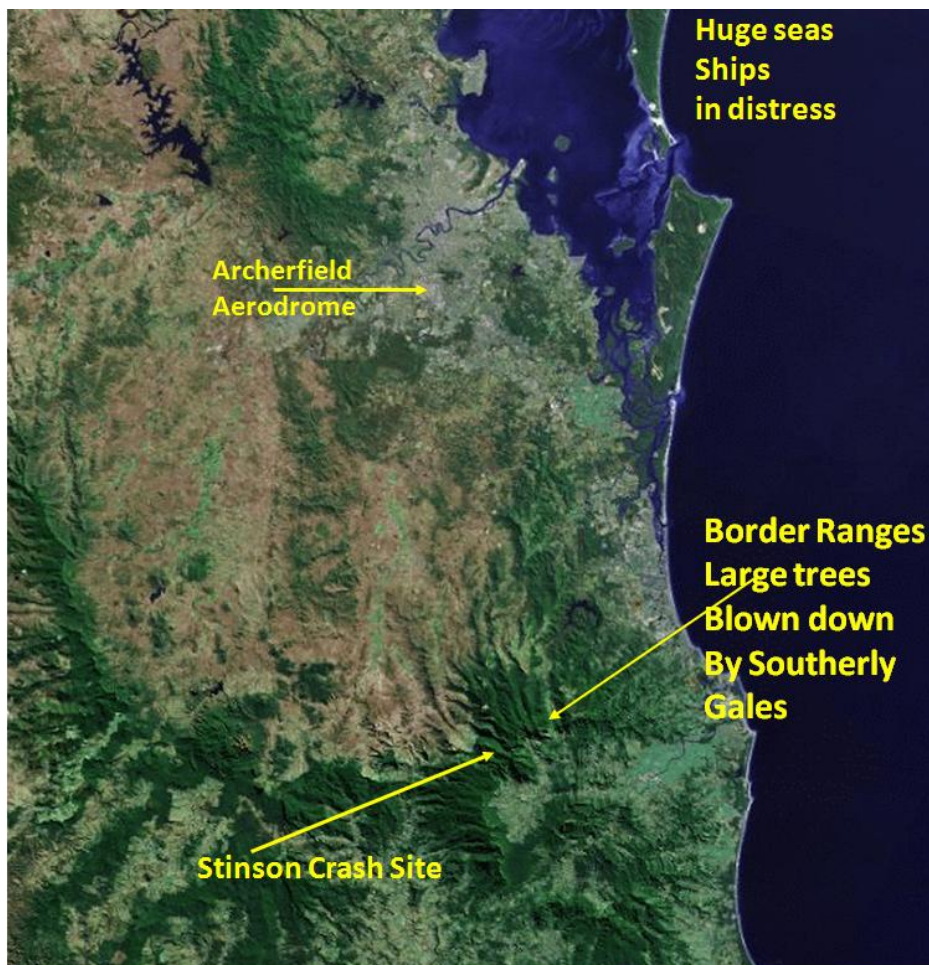


Figure 1 Location map showing Archerfield Airport and the crash site which was being pounded by southerly gales from the cyclone.

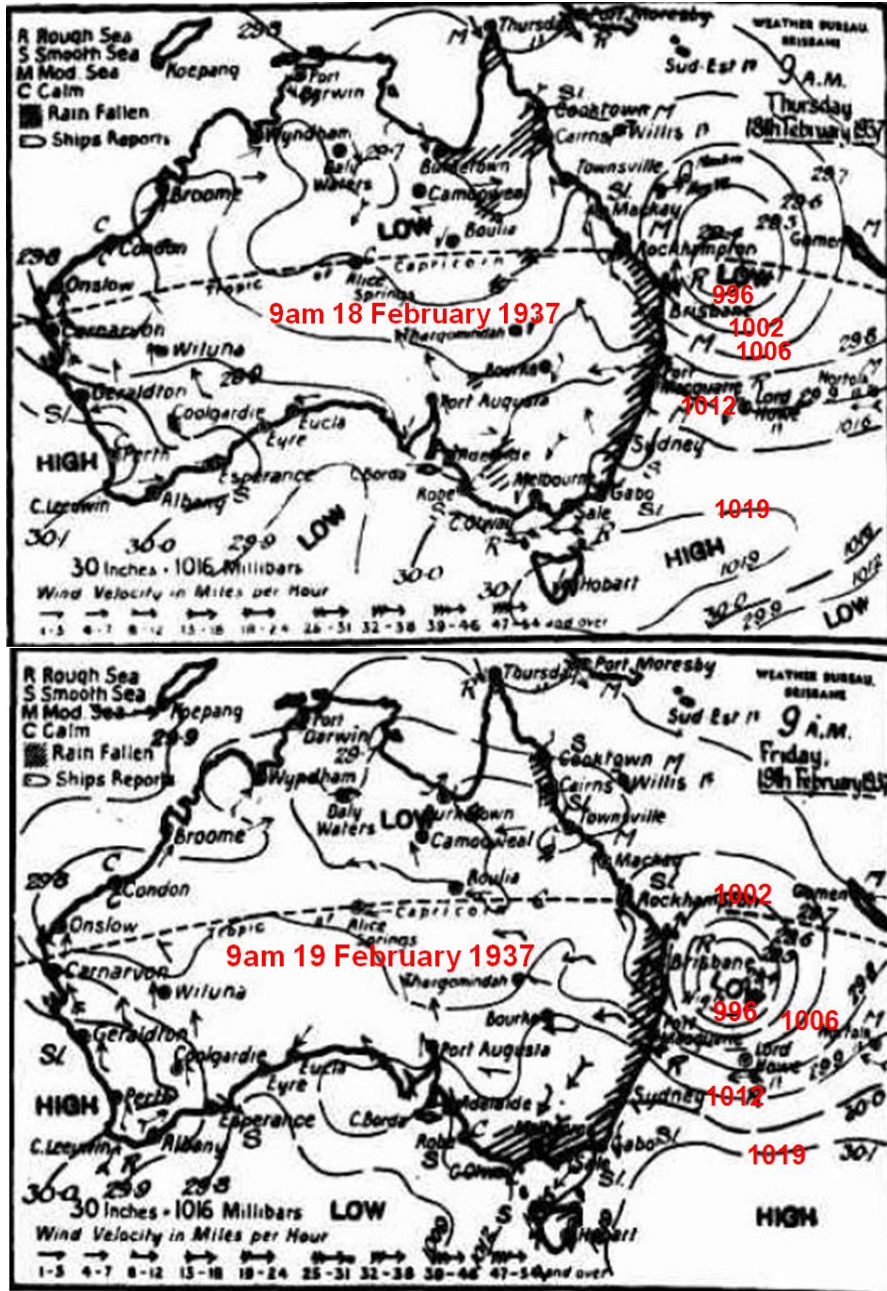


Figure 2. Mean sea level analyses by the Bureau of Meteorology Brisbane as published in the Courier Mail for 9am 18 February 1937 (top), and 9am 19 February 1937 (bottom).