

**Aviation Safety Investigation Report
199700025**

**Kavanagh Balloons Pty Ltd
E-180**

04 January 1997

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NOTE: All air safety occurrences reported to the ATSB are categorised and recorded. For a detailed explanation on Category definitions please refer to the ATSB website at www.atsb.gov.au.

The Bureau did not conduct an on scene investigation of this occurrence. The information presented below was obtained from information supplied to the Bureau.

Occurrence Number: 199700025 **Occurrence Type:** Accident
Location: Port Melbourne
State: VIC **Inv Category:** 4
Date: Saturday 04 January 1997
Time: 0730 hours **Time Zone** ESuT
Highest Injury Level: None

Aircraft Manufacturer: Kavanagh Balloons Pty Ltd
Aircraft Model: E-180
Aircraft Registration: VH-AJC **Serial Number:** KB155
Type of Operation: Commercial Other
Damage to Aircraft: Substantial
Departure Point: Royal Park Vic
Departure Time: 0645 ESuT
Destination: Port Melbourne Vic

Approved for Release: Thursday, April 10, 1997

The balloon with 1 pilot and 10 passengers on board departed at about 0650 from Royal Park for a flight over Melbourne city. The pilot intended to land at Port Melbourne, a distance of approximately 7 kilometres.

The pilot said that he was advised that at Essendon, 4 kilometers to the northwest the weather was overcast with a 1 knot northerly wind at 1000 feet and the surface wind was calm. After takeoff the balloon climbed to 900 feet and the pilot estimated that he was drifting south at 2 knots. As the flight proceeded across the docks he noticed significant ripples on the water surface and significant movement of trees. He estimated that a surface wind of 10 knots had developed in his planned landing area.

Because of the wind speed the pilot was forced to make a rapid descent and land before reaching the shore of Port Philip Bay. He force landed the balloon onto the third floor of a building under construction adjacent to the shoreline of the Bay. Although the balloon dragged across the concrete construction and skidded into a safety railing there was no injuries to the persons on board.

The pilot disembarked 6 passengers and attempted to lift off and descend to ground level alongside the building. During this manoeuvre the vent line snagged and the canopy started to deflate. As the canopy deflated it was ripped by construction materials resulting in the basket having to be manhandled to the ground.

Weather station readings taken at 0300 indicated that the wind at 1,000 feet was from the northwest at 10 knots. Actual weather readings taken from automatic weather stations around Melbourne approximately 45 minutes prior to departure of the balloon showed the surface winds were generally from the north to northeast averaging 5 knots. By 0900 the surface winds had increased to 10 knots

The pilot considered that the incident occurred because of an extremely rapid and localised katabatic wind had developed in the landing area. He plans to increase the volume of his balloon and to increase his fuel capacity to allow him to overfly Port Philip Bay should he experience increasing winds again.

The police advised that this is not the first time that this operator has had problems landing in Port Melbourne. The balloon had landed on the same building site some weeks prior to this event, and in a previous event the balloon with passengers on board had overshot the landing area, flown out over the Bay, and was subsequently towed back to shore by a police vessel.

The pilot had underestimated the wind speed that he would encounter on this flight. Even though the surface winds were calm at Essendon and Royal Park, the actual wind at 1,000 feet was ten knots (as reported at 0300), and this, coupled with a surface wind of 5 knots increasing to 10 knots as the morning progressed, was not the ideal conditions to undertake a flight into an area characterised by very little open landing spaces adjacent to a large expanse of water.

The operators intention is to increase the flight endurance of the balloon and fly across the Bay. This would need careful consideration as some of the land areas at the south end of the Bay are narrow, and the flight path may put the balloon into the mouth of the Bay. It may be that a takeoff more to the north of the city would preclude the need to consider an overwater flight.

