Aviation Safety Investigation Report 198800123

Conaero LA4-200

29 May 1988

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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 <u>www.atsb.gov.au</u>.

Occurrence Number: Location: Date: Highest Injury Level:		198800123 Cockburn Sound (21km Southwes 29 May 1988 Serious			Occurrence Type: Accident t of Jandakot) WA Time: 1619	
Injuries:			Fatal	Serious	Minor	None
		Crew	0	1	0	0
		Ground	0	0	0	-
		Passenger	0 0	1	0	0
		Total	0	2	0	0
Aircraft Details:	Conaero) LA4-200				
Registration:	VH-FOB					
Serial Number:	970					
Operation Type:	Private					
Damage Level:	Destroyed					
Departure Point:	Cockburn Sound WA					
Departure Time:	1619					
Destination:	Jandako	ot WA				

Approved for Release: January 10th 1989

Circumstances:

The pilot had flown the aircraft to Cockburn Sound to practice circuits. However, after the first landing he found the water conditions too rough to complete a takeoff. The pilot waited for a period in the hope that conditions would improve. Three quarters of an hour later he taxied along Cockburn Sound looking for an area that was suitable for takeoff, but this search was unsuccessful. After beaching the aircraft a second time the pilot observed that the aircraft was taking water. When the pilot attempted to drain the excess water from the bilges he found that the rear bilge pump was unserviceable, and the water had to be drained manually by removing two bungs. The bungs were replaced when the water flow reduced to a trickle after five to ten minutes. The sea state abated after four hours and the pilot decided to carry out a high-speed taxy run during which, if he assessed the conditions were suitable, he could convert the run to a takeoff. The pilot was able to get the aircraft up on to the hull step, however, before he could continue with the takeoff the aircraft suddenly pitched nose-up and then down before nosing over inverted approximately 50 metres from the shore line. Neither occupant was wearing a life jacket although they were carried in the aircraft. Both occupants received injuries which may have required the jackets for survival had assistance not been given from the shore. A screw was found to be missing from a normally watertight panel on the rear fuselage. The screw had been missing since the aircraft was last painted. Tests indicated that water was able to leak into the aircraft via the missing screw hole. Water in the rear fuselage would normally be pumped out by the rear bilge pump, however, it was unserviceable. The pump's impeller had become detached from the drive shaft sometime prior to the accident flight. Tests on the manual draining system used by the pilot indicated that a minimum of 31 litres of water remained in the aft fuselage after draining was apparently complete, when the flow of water had slowed to a trickle. Although the sea state appeared to improve there was still a significant swell running at the time of the accident. The pilot attempted his high-speed run in the direction of the swell instead of parallel to it. It is

probable that the combination of an aft centre of gravity, movement of weight associated with the water in the fuselage and the uplift provided by the swell caused the loss of control.

Significant Factors:

It was considered that the following factors were relevant to the development of the accident

1. The pilot was inexperienced in water operations.

2. The aircraft's rear bilge pump had failed, and the manual draining carried out by the pilot did not remove all of the water in the rear fuselage.

3. Although it was possible for a safe takeoff to be carried out under the prevailing conditions, the takeoff direction selected by the pilot reduced the safety margin.

4. During preflight inspection and checks prior to DEPARTURE from Jandakot, it was not noticed that the screw from the watertight panel was missing or that the rear bilge pump was unserviceable.