

**Aviation Safety Investigation Report  
199503449**

**de Havilland Canada  
Beaver**

**18 October 1995**

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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](http://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.

<b>Occurrence Number:</b> 199503449	<b>Occurrence Type:</b> Accident
<b>Location:</b> Lake Kununurra (2 km S Kununurra, Aerodrome)	
<b>State:</b> WA	<b>Inv Category:</b> 4
<b>Date:</b> Wednesday 18 October 1995	
<b>Time:</b> 1600 hours	<b>Time Zone:</b> WST
<b>Highest Injury Level:</b> Minor	
<b>Injuries:</b>	

	Fatal	Serious	Minor	None	Total
Crew	0	0	2	0	2
Ground	0	0	0	0	0
Passenger	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>

<b>Aircraft Manufacturer:</b> de Havilland Canada	
<b>Aircraft Model:</b> DHC-2	
<b>Aircraft Registration:</b> VH-WOG	<b>Serial Number:</b> 1561
<b>Type of Operation:</b> Instructional Dual	
<b>Damage to Aircraft:</b> Substantial	
<b>Departure Point:</b> Lake Kununurra WA	
<b>Departure Time:</b>	
<b>Destination:</b> Lake Kununurra WA	

**Crew Details:**

<b>Role</b>	<b>Class of Licence</b>	<b>Hours on</b>	
		<b>Type</b>	<b>Hours Total</b>
Pilot-In-Command	Commercial	170.0	3030
Other Pilot	ATPL	3.0	10500

**Approved for Release:** Wednesday, November 15, 1995

**Circumstances**

On the afternoon of the accident, the chief pilot was to undergo a 'check pilot' approval flight for company aircraft with a Civil Aviation Safety Authority Flight Operations Inspector (FOI). The chief pilot was initially required to demonstrate his competence to fly from the right seat of the company's De Havilland Beaver, including both into-wind and crosswind circuits. Following the completion of this demonstration, the chief pilot was to hand over control of the aircraft to the FOI. The FOI was to fly the aircraft under the supervision of the chief pilot.

The FOI was endorsed on the Beaver with a total time on type of three hours including one hour as pilot-in-command.

Weather information for the flights had been obtained by Avfax. There was a light northerly breeze at approximately 10 kts. In the area where crosswind circuits were to be conducted, the crosswind strength was approximately 8 kts with gusts of up to an additional 5 kts. Surface conditions on the lake at the time of the accident were described as a 'moderate ripple'.

The chief pilot completed a number of circuits. The FOI was satisfied with this aspect of the approval flight. Control of the aircraft was then handed over to the FOI.

The FOI reported that the into-wind circuits he had flown had been uneventful, including a practice forced landing. The chief pilot added that, although the landing technique had been satisfactory, the landing nose attitude had been a little lower than would be considered ideal. He had discussed this with the FOI during these circuits.

The FOI then requested to fly a crosswind landing and takeoff. A short discussion followed in which the FOI mentioned that most of his training on 'floats' had been carried out in 'light' wind conditions.

The FOI stated that, as he manoeuvred the aircraft for the crosswind approach and landing, the crosswind was still from the right but it had moderated a little from earlier observations.

As directed by the chief pilot, the FOI adopted a level nose attitude when the aircraft was close to the water and placed the right wing down to stop the 'drift'. At this time the power was reduced. The right float touched the water first, as expected for a crosswind landing, but the aircraft then 'skipped' slightly. The second time it touched down the float dug into the water and the aircraft yawed to the right. At this point, the FOI stated that he applied full left rudder to counteract the yaw. The chief pilot also stated that he took hold of the control column and applied full backpressure to assist with the recovery actions of the FOI.

The aircraft did not respond to these corrective measures. It proceeded to lurch violently left in what was described as a cart-wheeling motion.

The aircraft came to rest, right side up, facing the opposite direction to that of the intended landing, and with the right wing down approximately 20-30 degrees.

The aircraft rapidly filled with water from the right side. The FOI attempted to open his door on the left side but it appeared to be jammed by a float, as were all four doors. The chief pilot tried to assist the FOI but without success. While the FOI climbed into the rear seat to attempt to open the rear left door, the chief pilot attempted to exit from the window of the left front door. The FOI used a paddle to assist in opening his door but without results. As the aircraft started to sink the float moved away from the cabin area sufficiently to allow the FOI to evacuate through the left rear door. The chief pilot pulled himself through the left front window as the fuselage was starting to submerge.

The two pilots clung to the aircraft floats to await rescue. Both pilots sustained minor cuts and bruises.

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The aircraft sustained major structural damage. Both wings were torn from the wing roots. It was later recovered from the lake.

### Analysis

The chief pilot was experienced on the aircraft type but, considering he was in the process of an approval flight at the time of the accident, his experience as a 'check pilot' was limited.

The chief pilot stated that he felt the FOI was using a satisfactory technique to land the aircraft, albeit with a slightly 'flat' nose attitude. He was sufficiently confident in the FOI's ability to safely fly the aircraft that he did not feel it necessary to have his hands placed close to the control column. He pointed out, however, on this landing, the aircraft seemed to 'settle' at a greater rate than he had expected. He considered that, when the Beaver first touched down and 'skipped', the FOI was capable of recovering without assistance. It was not until the aircraft 'dug in' on the second touchdown that he felt it necessary to assist. In retrospect, the chief pilot thought that this action was a little too late to affect the recovery.

The FOI had limited experience in float plane operations. It had been some time since his 'type' endorsement on the Beaver had been completed. He also stated that his flights in the Beaver had all been conducted in 'light' wind conditions. The crosswind on the day of the accident was considered to be greater than he had previously experienced.

### Findings

1. The FOI had limited experience in float plane operations.
2. The FOI had limited experience on the aircraft type in crosswind conditions.
3. The chief pilot had limited experience as a check pilot.
4. The FOI lost directional control of the aircraft during a crosswind landing.
5. Both pilots experienced difficulty evacuating the aircraft.

