

**Aviation Safety Investigation Report  
198900261**

**Not Applicable**

**15 October 1989**

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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).**

**Occurrence Number:** 198900261  
**Location:** Wickham WA  
**Date:** 15 October 1989  
**Highest Injury Level:** Fatal  
**Injuries:**

**Occurrence Type:** Accident

**Time:** 1430

	Fatal	Serious	Minor	None
Crew	0	0	0	0
Ground	1	0	0	-
Passenger	0	0	0	0
<b>Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Aircraft Details:** Not Applicable  
**Registration:** Not Applicable  
**Serial Number:** Not Applicable  
**Operation Type:** Parachuting  
**Damage Level:** Nil  
**Departure Point:** Not Applicable  
**Departure Time:**  
**Destination:** Not Applicable

**Approved for Release:** 23rd March 1990

#### **Circumstances:**

The parachutist was completing his 39th jump, and his 5th jump using the particular type of rig. The jump sequence was planned as a free-fall from 9000 feet to 3500 feet, including work with another parachutist, followed by individual parachute deployment and landing. The jump sequence was part of the parachutist's training and there is evidence that he had had difficulty with his free-fall control on the 37th jump. The jump proceeded normally until the parachutists reached 3500 feet. At that point the parachutist moved away from the other parachutist, as briefed, and commenced his deployment sequence. The parachutist was observed to enter an unstable descent condition, prior to parachute deployment, lying on his back with his legs trailing the trunk of his body. The parachutist's speed was estimated at 250 km/hr which was approximately 60 km/hr higher than normal. The reserve parachute deployed more rapidly than normal and, following deployment, it was observed to be out of shape as it descended in a rapid spiral. The parachutist died as a result of injuries that he received from either the opening shock or the impact with the ground. An inspection of the parachuting equipment did not disclose any pre-existing defect that may have contributed to the accident. The reserve parachute had suffered considerable damage. The drogue and bridle (the line between the drogue parachute and the parachute bag) had separated from the parachute bag, the parachute bag (a container which is part of the canopy deployment system) was torn, several of the risers (lines between the harness and canopy) had snapped or were damaged and the slider (a cloth panel which slides up and down the risers and acts to control the opening speed during the canopy deployment) was torn and had burn marks caused by the risers. There was no damage to the harness. The main parachute and drogue were still packed in their pockets and the main parachute deployment handle was still attached to the velcro on the harness. The main parachute cutaway handle and the reserve parachute deployment handle had been activated. The damage path and witness evidence indicated that the reserve drogue and bridle had deployed at an angle of 180 degrees to the normal deployment path (ie. the drogue and bridle had exited the top of the harness, near the parachutists shoulders. It was then turned back

by the airflow and travelled along the parachutists back, at a very fast speed from shoulders to legs, before appearing near the parachutists feet. The reserve parachute had opened unevenly with the risers looping back over the slider during the opening. The parachutist had been having difficulty with his free-fall control, and the equipment that he was using on the fatal jump was not his normal rig. He was observed descending in an unstable condition at high speed immediately prior to reserve parachute deployment. It has been determined that the parachute's opening shock, under the observed conditions, would greatly exceed the design limits of the parachute causing the damage that was observed. The damage to the parachute would account for the reported rapid spiral after the parachute deployed. It could not be determined why the parachutist did not deploy his main parachute. The rig that the parachutist was using was not his own and he had borrowed it to familiarise himself with it. It is possible that, under the stress of an unstable descent, the parachutist pulled what he thought was the main parachute deployment handle but which was the main parachute cut-away handle. The main parachute cut-away handle, on the borrowed rig, was in a similar position to the main parachute deployment handle on his own rig. Once the parachutist had activated the main parachute cut-away he was left with no option but to deploy his reserve parachute.

**Significant Factors:**

The following factors were considered relevant to the development of the accident

1. The parachutist was unfamiliar with the equipment that he was using, and it is possible that this unfamiliarity led him to pull the deployment handles in the incorrect sequence.
2. The parachutist was unable to control his stability during the period immediately prior to release of the reserve parachute.
3. The parachutist's instability affected the opening sequence of the reserve parachute which, in turn, caused substantial damage to the parachute and this affected its operating capabilities.