Bulldog Model 120/122, G-CCOA

AAIB Bulletin No: 10/2001	**Ref: EW/G2001/08/16**	**Category: 1.3**

Aircraft Type and Registration:	Bulldog Model 120/122, G-CCOA	
No & Type of Engines:	1 Lycoming IO-360-A1B6 piston engine	
Year of Manufacture:	1975	
Date & Time (UTC):	22 August 2001 at 1609 hrs	
Location:	Cranfield Airport, Bedfordshire	
Type of Flight:	Training	
Persons on Board:	Crew - 2	Passengers - None
Injuries:	Crew - 1 (Minor)	Passengers - N/A
Nature of Damage:	Rear of aircraft and landing gear	
Commander's Licence:	Commercial Pilots Licence with Instructor Rating	
Commander's Age:	29 years	
Commander's Flying Experience:	1,616 hours (of which 729 were on type)	
	Last 90 days - 153 hours	
	Last 28 days - 26 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

The Bulldog is a relatively high performance light aircraft and has a high rate of climb after take-off. The climb performance is sufficient that, on runways of suitable length, practice engine failures may be simulated at a safe height soon after take-off and a landing can be made on the runway remaining.

The accident flight was planned as one of a series of type-conversion flights for the student, and the instructor planned to simulate an engine failure soon after take-off. The instructor had previously briefed the student on the techniques to be followed for such an engine failure but the failure was not included as a specific part of the pre-flight briefing. Nevertheless, the student gave a pre-take-off emergency brief which included the option to land straight ahead if the engine failed soon after take-off.

At about 200 feet agl after take-off the instructor closed the throttle to simulate an engine failure. Unfortunately the student was slow to lower the nose after the simulated failure and the aircraft's speed reduced. After allowing the student a brief moment to correct the error, the instructor took control but was unable to prevent the aircraft landing heavily back on the runway causing the right main landing gear leg to collapse and the aircraft to bounce airborne again. On landing from the bounce the aircraft swung to the right and departed from the runway before coming to a halt on the adjacent grass. The crew, who were both wearing four point harnesses, vacated the aircraft through the normal exit.

In his report the instructor assessed the cause of the accident as his delay in taking control of the aircraft in time to prevent a heavy landing after the student had been slow to respond to the simulated engine failure. The Chief Instructor agreed with the instructor's assessment of the cause and stated that the risk of a similar accident happening in the future would be reduced by changing pre-flight briefing procedures.