De Havilland DH112 Venom FB1, G-GONE

AAIB Bulletin No: 9/2001 **Ref: EW/G2001/06/01** **Category: 1.1**

Aircraft Type and Registration:	De Havilland DH112 Venom FB1, G-GONE
No & Type of Engines:	1 De Havilland Ghost 48 MK.1 turbojet engine
Year of Manufacture:	1954
Date & Time (UTC):	2 June 2001 at 1013 hrs
Location:	Biggin Hill Airport, Kent
Type of Flight:	Private
Persons on Board:	Crew - 1 - Passengers - None
Injuries:	Crew - None - Passengers - N/A
Nature of Damage:	Damage to underside
Commander's Licence:	Airline Transport Pilots Licence
Commander's Age:	69 years
Commander's Flying Experience:	5,574 hours (of which 242 were on type) Last 90 days - 10 hours Last 28 days - 6 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

The aircraft was being flown from Bournemouth, Dorset to Biggin Hill, Kent as the number three aircraft in a three-aircraft formation positioning for the annual air display. Although the pilot had over 200 hours flying experience on type, this was only his second flight on type in 8 years and only his second flight in G-GONE. During his first flight on the previous day the pilot had noted

that the undercarriage position indicator lights were quite dim and difficult to discern being positioned as they were to the lower left of the instrument panel.

On arrival at Biggin Hill the three aircraft carried out a 'run in and break' manoeuvre from line astern formation for a landing on Runway 21. On the downwind leg the pilot carried out the pre-landing checks which include, amongst other things, the lowering of the undercarriage and one third flap, and a check of brake pressure at the wheels. After lowering the flap, the pilot checked the flap position indicator and noticed that the flap was at more than the one third setting. He raised the flap to the correct setting and continued the approach.

As he entered the turn to the final approach the pilot lowered full flap and concentrated on achieving an even spacing between the three aircraft whilst avoiding the slipstream of the two aircraft ahead. He became conscious that the spacing between the lead aircraft and the number two was less than between his own aircraft and the number two and applied power to reduce his spacing on the aircraft ahead. He checked the undercarriage indications and, although he had some difficulty seeing the indications in the prevailing light conditions, he convinced himself that the undercarriage was down and called 'FINALS THREE GREENS on the tower frequency. The pilot then carried out a normal flare and smooth touchdown with the aircraft landing on its belly. Although there was some nose vibration in the latter stages of the landing run, the pilot did not realise that he had landed with the wheels up until advised by ATC. When the aircraft came to a halt the pilot closed down the aircraft systems, made the ejection seat safe and exited uninjured.

In his report the pilot considered that three factors contributed to his failure to lower the undercarriage. First, the undercarriage and flap levers are located in close proximity and are of similar design. Although he thought he was lowering the undercarriage in the pre-landing checks, he believes that he actually lowered flap. When he subsequently checked the flap position indicator after completing the checks and discovered more than the desired flap setting, he failed to associate the excess of flap with a failure to lower the undercarriage lever. Second, the location of the undercarriage position indicator in the cockpit and the intensity of the lights sometimes make the undercarriage position difficult to discern. Third, the concentration required to carry out a stream landing may have distracted him .