AAIB Bulletin No: 1/94 **Ref: EW/G93/11/02** **Category: 1.1**

Aircraft Type and Registration:	Cessna Citation SII-C550, N7070A	
No & Type of Engines:	2 JT15D-4B turbofan engines	
Year of Manufacture:	1985	
Date & Time (UTC):	3 November 1993 at 1333 hrs	
Location:	Cardiff-Wales Airport	
Type of Flight:	Private	
Persons on Board:	Crew - 2	Passengers - 3
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Burst tyre and damage to wing and fuselage skin; fuel leaks from tank inspection panels	
Commander's Licence:	Airline Transport Pilot's Licence (FAA)	
Commander's Age:	61 years	
Commander's Flying Experience:	26,700 hours (of which 463 were on type) Last 90 days - 88 hours Last 28 days - 36 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

The aircraft departed from Dublin Airport at 1243 hrs; the planned destination was Bristol Airport, however, the RVR for arrival was 300 metres and so the commander diverted to Cardiff-Wales Airport. The aircraft was given radar vectors to the final approach and a coupled ILS was flown to Runway 12. The commander reported that the auto pilot was disengaged when the approach lights were sighted. The threshold was crossed at 50 feet, radio altitude, at an indicated airspeed "just above the calculated V_{REF} of 100 kt". Power was slowly reduced, however, as the aircraft entered the landing flare, there was a significant reduction of airspeed; despite the application of power, the right wing dropped and the aircraft touched down heavily on the right main landing gear. The commander brought the aircraft to a halt on the runway where it was inspected by Airport Fire Service (AFS) personnel. The right main wheel tyre had burst, however, it was safe for the aircraft to vacate the runway under its own power. This was done and the accompanying AFS vehicle noticed that fuel was leaking from the right wing area. Once clear of the runway, the aircraft was shut down.

The accident happened at 1333 hrs; the meteorological observation for 1320 hrs contained, in part, the following:

Surface wind	070°/13 kt
Visibility	1,300 metres in mist
Cloud	1 okta base 200 feet
	4 oktas base 400 feet
	7 oktas base 700 feet
Temperature/dew point	+9°C/+9°C

The commander considered that the aircraft may have experienced wind shear during the landing phase.

The aircraft was subsequently inspected by a licensed engineer. The fuel leaks were from the underwing tank inspection panels; these were resealed, the right tyre was replaced and the aircraft was ferried, with landing gear extended, to the repair agency at Bournemouth Airport. A detailed inspection of the aircraft was carried out by a Citation field service engineer. There was damage to the inboard portion of the trailing edge of both flaps. The right underwing skin was wrinkled in several places and there was a wrinkle in the lower fuselage skin from the rear spar to the rear pressure bulkhead. The right wing inboard trailing edge and fairing was bent and the right centre and aft wing to fuselage fairings were bowed outboard. In places the fuselage skin had pulled away from the bulkhead and the bulkhead aft of the rear spar was buckled. Detailed internal inspection of the right wing root area will only be possible when plumbing, wiring and components in the area are removed at a later date. Wing symmetry checks were satisfactory and the engine pylons and carry through showed no sign of damage.