AAIB Bulletin No: 6/93 **Ref: EW/G93/01/12** **Category: 1a**

Aircraft Type and Registration:	Boeing 757-23A, G-OOOJ
No & Type of Engines:	2 Rolls-Royce RB211-535E4 turbofan engines
Year of Manufacture:	1989
Date & Time (UTC):	21 January 1993 at 1755 hrs
Location:	Glasgow Airport
Type of Flight:	Public Transport
Persons on Board:	Crew - 10 Passengers - 220
Injuries:	Crew - None Passengers - None
Nature of Damage:	Fuselage skin distorted in area of nose landing gear
Commander's Licence:	Airline Transport Pilot's Licence
Commander's Age:	43 years
Commander's Flying Experience:	7,201 hours (of which 1,338 were on type) Last 90 days - 131 hours Last 28 days - 59 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

On approaching Glasgow for a landing on Runway 23, the aircraft commander confirmed receipt of the current Automatic Terminal Information Service (ATIS) broadcast which gave a mean surface wind of 260°/38 kt with direction variable between 230° and 290° and speeds ranging from 28 kt to 57 kt. The ATIS also referred to reports of marked wind shear and turbulence on the approach to Runway 23 and stated that severe turbulence was forecast below FL70 in the Scottish Flight Information Region. At a range of five and a half miles from touchdown, the aircraft was cleared to land and the crew were informed by the aerodrome controller that the surface wind was 270°/48 kt. From this point on, the controller transmitted the surface wind about once every 10 seconds until just before touch-down when a final wind of 250°/37 kt was passed. During this period the maximum wind speed passed to the aircraft was 54 kt. The commander stated that a large wind gust was experienced during the landing flare which resulted in a firm to heavy landing. The aircraft was taxied to its stand without incident but, on shut down, skin damage in the area of the nose landing gear was noticed by ground engineers.

The anemometer at Glasgow is sited 1,750 metres beyond the threshold of Runway 23 and 250 metres to the north of the centreline. Tests have confirmed that the wind measured by the

anemometer, which drives an analogue display in front of the aerodrome controller, provides a good indication of the wind at the threshold of Runway 23. The anemograph recording for the half hour before the accident indicates that the wind direction was fairly constant from about 260° with a mean speed of about 40 kt, however, there were frequent gusts to over 50 kt with one to 68 kt. At about the time of the accident, there was a gust to 60 kt.