

BAe 146-300, G-BPNT

AAIB Bulletin No: 3/97 Ref: EW/G96/10/17 Category: 1.1

Aircraft Type and Registration:	BAe 146-300, G-BPNT
No & Type of Engines:	4 Lycoming ALF 502-R5 turbofan engines
Year of Manufacture:	1989
Date & Time (UTC):	19 October 1996 at 2004 hrs
Location:	Bournemouth International Airport
Type of Flight:	Public Transport
Persons on Board:	Crew - 6 - Passengers - 109
Injuries:	Crew - None - Passengers - None
Nature of Damage:	Impact damage to underside of fuselage between frames 36 and 39
Commander's Licence:	Airline Transport Pilot's Licence
Commander's Age:	49 years
Commander's Flying Experience:	12,000 hours Last 90 days - 90 hours Last 28 days - 30 hours
Information Source:	AAIB telephone calls and correspondence with the operator. Mandatory Occurrence Report submitted to the CAA. FDR readout analysed by the AAIB

On 20 October 1996 while the aircraft was being inspected prior to flight from Bournemouth, damage to the rear underside of the fuselage was discovered. The aircraft was withdrawn from service and ferried unpressurised to Stansted Airport where repairs were carried out.

The maintenance organisation with responsibility for the aircraft submitted a Mandatory Occurrence Report (MOR) to the Safety Data Department (SDD) of the CAA and arranged for the Flight Data Recorder (FDR) to be replayed. Analysis of this data did not reveal a time and place where the damage, consistent with a tail scrape, might have occurred. The operator had received no reports of anything unusual from operating crews of the previous series of flights. The attention of the AAIB was drawn to the MOR and a print out of the FDR data obtained. Flight recorder specialists in the AAIB were able to identify a landing incident on 19 October 1996 when the aircraft's attitude

around touchdown was recorded at values which would have permitted the rear of the fuselage to contact the runway. A trace of the relevant parameters is shown at Figure 1.

The crew of the flight in question had no recollection of a tailscrape having occurred and there had been no reports of unusual noises from the cabin crew. The commander reported he had been the handling pilot for the landing at Bournemouth and the left hand seat had been occupied by a newly joined commander who was acting as the monitoring pilot. Although the landing was fairly firm the commander was unconcerned and did not consider that anything untoward had occurred. FDR data shows the maximum vertical g as 1.25, which is not exceptional. The wind was 240°, varying between 210° and 270°, at 10 kt with good visibility, broken cloud at 800 feet and overcast at 1200 feet. The temperature was +15°C.

Records maintained by the Safety Data Department of the CAA indicate that since October 1989 there have been six BAe 146 tailscrapes, most of them having occurred during the landing phase.