

INCIDENT

Aircraft Type and Registration: BAe ATP, G-BTPL

No & Type of Engines: 2 Pratt & Whitney 126 turboprop engines

Year of Manufacture: 1991

Date & Time (UTC): 17 January 1994 at 1650 hrs

Location: Glasgow Airport

Type of Flight: Public Transport

Persons on Board: Crew - 4 Passengers - 15

Injuries: Crew - None Passengers - None

Nature of Damage: None

Commander's Licence: Airline Transport Pilot's Licence

Commander's Age: 39 years

Commander's Flying Experience: 6,300 hours (of which 1,700 were on type)
Last 90 days - 120 hours
Last 28 days - 35 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

Whilst taxiing towards the holding point, the crew selected the Environmental Conditioning System (ECS) 'pack No 1' to 'ON', as was normal. After travelling approximately 100 yards, the 'SMOKE' warning on the central warning panel illuminated. The commander brought the aircraft to a stop and, after establishing with the cabin crew that there was smoke in the rear cabin but that it did not seem to be coming from the rear baggage hold, he decided to shut down both engines. The first officer informed ATC of their situation, and five fire appliances attended the aircraft within one minute. After the front passenger door had been opened and the steps deployed, the smoke cleared and a controlled disembarkation of the passengers was carried out.

The aircraft was withdrawn from service and subjected to an engineering examination by the operator's maintenance personnel. A fault isolation procedure for smoke in the cabin identified no fault with the No 1 engine but a valve, known as the P2.5 and P3 air switching valve, was replaced on this engine due to evidence of unusual wear between a guide pin and its locating slot in a valve seat. The aircraft

was returned to service for a short period without further incident, but with the No 1 ECS pack isolated as a precaution. When the aircraft returned to its maintenance base, a more detailed examination of the No 1 engine revealed oil to be present internally in the region of the high pressure compressor impeller and the No 4 bearing housing, as well as inside the body of the replacement P2.5/P3 switching valve. This engine was subsequently removed and sent for test/examination at the manufacturer's facility in the UK. A report on the examination of this engine has yet to be compiled, but any significant findings will be reported in a future edition of AAIB Monthly Bulletin.

Year of Manufacture:	1992
Date & Time (UTC):	30 January 1994 at 1300 hrs
Location:	Manchester Airport
Type of Flight:	Public Transport
Persons on Board:	Crew - 4 Passengers - 32
Injuries:	Crew - None Passengers - None
Nature of Damage:	Relatively minor
Commander's Licence:	Airline Transport Pilot's Licence with Instrument and Flying Instructor's Ratings
Commander's Age:	36 years
Commander's Flying Experience:	3,250 hours (of which 2,000 were on type) Last 90 days - 175 hours Last 30 days - 52 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot and reports on copies by the AAIB

The aircraft was pushed back from Stand 1 at Manchester Airport by a handling agent's driver by a trainee driver under the supervision of an experienced driver. This stand is located next to the terminal building on a pier extending out from the building and it is desirable for the pushback to be in the form of an S-manoeuvre in order to increase the aircraft's separation from the building. After pushing back from this stand it is then necessary for the aircraft to be pushed forward away from the building before engine start. A similar situation exists for the two adjacent stands.

Communication between the flight crew and the ground crew was by hand signals that should become of a problem with the aircraft external communication system. The pushback manoeuvre, with the towbar hitched to the front of the tug, was completed successfully with the aircraft positioned at an angle of approximately 45° to the taxiway centreline and with its nose landing gear just beyond the centreline. As the tug started to reverse to pull the aircraft forward it was noted that the