DHC-8-311, G-BRYK, 16 May 1997

AAIB Bulletin No: 8/97 Ref: EW/G97/05/07 Category: 1.1

Aircraft Type and Registration:	DHC-8-311, G-BRYK
No & Type of Engines:	2 Pratt & Whitney PW-123 turboprop engines
Year of Manufacture:	1991
Date & Time (UTC):	16 May 1997 at 1115 hrs
Location:	Birmingham International Airport, W Midlands
Type of Flight:	Public Transport
Persons on Board:	Crew - 4 - Passengers - 41
Injuries:	Crew - None - Passengers - None
Nature of Damage:	None
Commander's Licence:	Airline Transport Pilot's Licence
Commander's Age:	32 years
Commander's Flying Experience:	4,325 hours (of which 1,665 were on type)
	Last 90 days - 179 hours
	Last 28 days - 61 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

During a scheduled flight from Southampton to Newcastle, one ofthe cabin attendants reported a burning smell around seat Rows7 to 9 which was confirmed by the passengers. The No 1 cabinattendant was instructed to switch off all the passenger serviceunit (PSU) reading lights, monitor the situation and report back. The first officer subsequently went back to the cabin to investigate,but since he was unable to detect any burning smell, the decisionwas made to continue to Newcastle. However, some 5-10 minuteslater, the cabin attendant reported that the smell had returned. The commander decided to declare an emergency and divert to Birmingham. Normal approach and landing procedures were used, as there wasno smoke or fire in the cabin. Following an uneventful landing,the cabin attendant reported that the situation had not deteriorated. It was therefore decided that an emergency evacuation was notnecessary, and the passengers disembarked normally on the stand.

A subsequent investigation revealed that an air conditioning ducthad become disconnected above seat Row 6 C/D. It was apparentthat some 'fluff' from the duct had fallen onto the back of oneof the PSU lights and had generated an acrid smell. The sectionsof duct are normally joined together by means of nylon 'tie-wrap'bands and adhesive-backed fabric tape. It was noted that in thiscase the duct had been joined by the use of aluminium 'speed tape',and it was loss of adhesion of this that had allowed the ductjoint to separate.

There is seldom a requirement for the ducting in this area tobe disturbed, and it is likely that the duct joint was modifiedby a previous operator. The PSU panels are subject to maintenanceactivity on a relatively frequent basis, and the airline is instructingits maintenance personnel to check that air duct joints are tothe correct standard whenever such maintenance is carried outon its Dash 8 aircraft.