

INCIDENT

Aircraft Type and Registration:	DHC-8-311, G-BRYU
No & Type of Engines:	2 Pratt & Whitney Canada PW123 turboprop engines
Year of Manufacture:	1997
Date & Time (UTC):	20 June 2005 at 1340 hrs
Location:	Aberdeen Airport, Scotland
Type of Flight:	Public Transport (Passenger)
Persons on Board:	Crew - 4 Passengers - 28
Injuries:	Crew - None Passengers - None
Nature of Damage:	Hydraulic pipe leak
Commander's Licence:	Airline Transport Pilot's Licence
Commander's Age:	43 years
Commander's Flying Experience:	4,452 hours (of which 853 were on type) Last 90 days - 190 hours Last 28 days - 57 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot. Additional information supplied by National Air Traffic Services and by the Safety Services Department of the Operator

The aircraft commander reported that the passengers were disembarking on arrival at Aberdeen when a member of ground staff was observed making gestures indicating an abnormality in the nose area. On leaving the aircraft to investigate the problem, the commander observed what appeared to be smoke coming from a vent under the right hand side of the nose. He returned to the aircraft, by which time all passengers had disembarked. On re-entering the cockpit, he told the First Officer to alert the AFRS and then to evacuate the aircraft. He entered the cabin and advised the cabin crew to evacuate via the forward exit; he then made sure that all power had been removed from the aircraft before he left.

On arrival at the aircraft the AFRS determined that the smoke had ceased so no extinguishant was used. An engineer then carried out an investigation with the fire services present. Examination revealed that a very small hole in a hydraulic pipe had sprayed fluid into the hot area of the weather radar, producing a fluid vapour similar to smoke. It is understood that the hole was presumed to have resulted from chaffing/fretting as a result of contact with adjacent structure or piping.

At about the time of this incident, a high occurrence rate of hydraulic leaks on the operator's Dash-8 fleet was identified. It was thus decided to issue an Engineering Technical Requirement calling for "Inspection of Rigid

and Flexible Hydraulic Tube Installation”. The specific work requirement was as follows:

“Inspect installation of all rigid hydraulic tubes in the NLG bay, LH and RH nacelles, wing roots and rear fuselage for adequate clearance between pipe-to-pipe and pipe-to-structure”.

“Inspect installation of MLG brake unit flexible hydraulic tubes”

This was a repetitive inspection to be carried out at ‘A’ and ‘C’ checks. During the six months since these inspections were implemented, only one further hydraulic leak has been reported on the operator’s Dash 8 fleet; a total of eight aircraft. This represents a substantial reduction in the previous rate of occurrence.