

INCIDENT

Aircraft Type and Registration:	SD3-60 Variant 100, G-CLAS
No & Type of Engines:	2 Pratt and Whitney Canada PT6A-65AR Turboprop engines
Year of Manufacture:	1984
Date & Time (UTC):	11 May 2007 at 0002 hrs
Location:	2 miles south-west of Stansted Airport
Type of Flight:	Commercial Air Transport (Cargo)
Persons on Board:	Crew - 2 Passengers - None
Injuries:	Crew - None Passengers - N/A
Nature of Damage:	Minor damage to wiring
Commander's Licence:	Airline Transport Pilot's Licence
Commander's Age:	45 years
Commander's Flying Experience:	3,983 hours (of which 1,496 were on type) Last 90 days - 33 hours Last 28 days - 15 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot together with written submission provided by the company General Manager

Synopsis

The flight crew experienced a burning smell during the climb. A chafed wire was identified as the cause.

a significant amount of what he assumed to be smoke at the rear of the main cabin.

History of the flight

The aircraft, which was carrying no payload, was taxied in light rain for a departure. The windscreen wipers were therefore in use. Both were, however, switched off prior to the takeoff roll. The aircraft took off and climbed uneventfully to approximately 1,500 ft at which point there was a burning smell in the cockpit. The smell grew stronger fairly quickly. As there was no obvious visual sign of smoke in the cockpit, the commander opened the P1 cockpit door. He discovered

He shut the door and instructed the first officer to declare an emergency and to ask for an immediate return to the airport. Vectors were then provided for a left-hand circuit back towards Runway 23 for an ILS approach to land. The circuit and landing were uneventful and once clear of the runway the commander re-checked the cabin and found that the smoke had cleared. After liaising with ATC and the fire crew, the aircraft was taxied to a remote stand where the latter attended. They used thermal imaging equipment to check for heat sources

and, finding none, they stood down. There was no cabin smoke warning during this event.

In view of the short distance from the landing runway at which the event began and the fact that the smoke was not in the cockpit, the captain decided not to expend valuable time donning smoke hoods.

Technical investigation and corrective actions

It was reported that a small wire in a lighting circuit behind panel 4P above the first officer's head was found to have been chafing. This was presumed to have

caused the smoke. The smoke in the rear of the cabin was considered to have been mist forming in the cargo area, caused by mixing of warm and cold airflows in the cabin. This was, at the time, misidentified and incorrectly associated with the burning smell. The cabin smoke detectors tested normally once the aircraft was back on the ground.

The chafing wire was re-routed and protected and the aircraft is reported to have operated subsequently with no further problems.