Safety Regulation Group
Safety Information and Data Department

Follow-up Action on Occurrence Report

ACCIDENT TO PIPER PA-23-250 AZTEC, N444DA, AT SOUTH CAICOS AIRPORT ON 26 DECEMBER 2005

CAA FACTOR NUMBER	:	F23/2007
FACTOR PUBLICATION DATE	:	10 August 2007
OPERATOR	:	Private
CAA OCCURRENCE NUMBER	:	2005/10518
AAIB REPORT	:	AAR 3/2007

SYNOPSIS

From AAIB Report:
The accident was reported to the Turks and Caicos Islands (TCI) Civil Aviation Department (CAD) on the evening of the 26 December 2005. The following day a request for assistance was made to the UK Air Accidents Investigation Branch (AAIB), under the terms of a pre-existing Memorandum of Understanding. The TCI CAD appointed an Investigator In Charge (IIC) to conduct an investigation in accordance with the provisions of Annex 13 to the International Civil Aviation Organisation (ICAO) Convention. The investigation was conducted by: Mr P Forbes (Investigator-in-Charge), Ms G M Dean (AAIB Operations), Mr P Thomas (Operations), Mr A N Cable (AAIB Engineering) and Mr K Malcolm (Engineering). The USA, as the country of aircraft manufacture and registration, appointed an Accredited Representative from the National Transportation Safety Board (NTSB). Further assistance to the investigation was provided by the manufacturers of the aircraft, the engines and the propellers.

The AAIB Inspectors arrived in the TCI on 28 December 2005. Investigation activities included interviewing witnesses to the accident, obtaining details of the aircraft's and pilot's backgrounds, assessing operational factors, inspecting the accident site and organising the recovery and examination of the aircraft wreckage.

The pilot involved in the accident had purchased the aircraft in the USA and flown it to the TCI on 24 December 2005. The accident occurred two days later on an internal flight at night, within the TCI, with the pilot and three passengers on board. The aircraft was seen to turn to the left shortly after takeoff and then, after only a brief time airborne, it entered a steep descent towards the sea from which it did not recover. All four occupants were fatally injured.

Inspection of the accident site and the wreckage showed that the aircraft had struck the sea at high speed while descending in a nose down and right wing low attitude. Detailed examination found evidence of a number of pre-impact powerplant anomalies but no signs of pre-impact failure or malfunction of the aircraft or its equipment relevant to the accident.

The pilot held a Federal Aviation Authority (FAA) Commercial Pilot's Licence (CPL). His flying experience was limited and it is quite possible that he had not previously carried out a takeoff at night with a limited local environmental lighting. At the time of the accident he did not meet the relevant recency requirements for flight at

night with passengers. The evidence indicated that the accident resulted from a loss of control because of the spatial disorientation of the pilot.

The investigation identified the following causal factors:-

1. A lack of appreciation by the pilot of the difficulty in executing a turn, very shortly after takeoff, in conditions of almost complete darkness.

2. A loss of control of the aircraft as a result of a spatial disorientation.

Two safety recommendations have been made.

FOLLOW UP ACTION

The two Safety Recommendations made by the AAIB following their investigation are reproduced below together with the CAA's responses.

Recommendation 2007-001

It has been recommended that the FAA require that, before, flight, variable-pitch propellers receive a full functional ground check following final assembly or re-assembly.

CAA Response

This Recommendation is not addressed to the CAA.

CAA Status - Closed

Recommendation 2007-002

It has been recommended that the FAA take measures aimed at ensuring an adequate standard of quality control during repair and overhaul operations on light aircraft engines and propellers.

CAA Response

This Recommendation is not addressed to the CAA.

CAA Status - Closed