CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
Aircraft Accident Investigation and Inquiry Board
Aircraft Incident Report

BASIC INFORMATION

Aircraft Registration	:	RP-C8994
Aircraft Type/Model	:	Airbus 320-232
Owner/Operator	:	Air Asia Zest Inc.
Date/Time of Incident	:	January 9, 2015/1702Z
Type of Operation	:	Commercial/Air Transport
Phase of Operation	:	Cruise
Type of Occurrence	:	Emergency Descent
Place of Incident	:	20NM before top of descent or over Lubang Mindoro approximately 70NM to Manila

EXECUTIVE SUMMARY

On January 09, 2015, at around 1405Z, Flight No. EZD941, an Airbus 320-232 type of aircraft with Registry No. RP-C8994 owned and operated by Air Asia Zest Inc. departed Kuala Lumpur International Airport (WMKK), Malaysia bound for Ninoy Aquino International Airport (RPLL), Philippines. During the interview, the Pilots said that the first indication of the problem occurred an hour after airborne where the aircraft experienced an Air Engine Bleed #1 Fault indication in the Electronic Centralized Engine Monitoring (ECAM). The Pilots immediately initiated the Operational Engineering Bulletin action in accordance with the FCOM procedure. Since there was no Minimum Equipment List (MEL) item before the flight, the Pilots continued their flight to a cruising altitude of FL390.

While performing approach briefing around 20NM before top of descent or over Lubang Mindoro approximately 70NM to Manila the aircraft's air engine bleed #2 fault indicated at the ECAM and a warning of High Cabin Altitude illuminated at an indicated cabin altitude of 8,900 feet. The pilot requested a lower flight level from Manila Approach Control and was advised to descent to FL260.

While on descent following unsuccessful reset of the bleed air system, ECAM called for an emergency descent which was promptly followed by the Pilots. The Pilots declared an emergency to the ATC and was cleared to FL140 then FL080 and be vectored to land for ILS approach using runway 06. As part of the procedure, both pilots donned their emergency oxygen masks and deployed the cabin passenger oxygen masks for safety.

After passing FL010 the pilots declared the aircraft was out of emergency and announced the removal of the passenger oxygen masks. The aircraft landed safely around 0121H, 19 minutes after the emergency descent was initiated with no injuries to the 6 crew or 107 passengers and the aircraft did not sustain damage related to the event.

PROBABLE CAUSE

The Aircraft Accident Investigation and Inquiry Board determined that the probable cause of this accident was the fault in the No. 2 bleed air system was found to have originated with the failure of the Fan Air Valve does not let enough cold air to reach the Pre Air Cooler exchange that cause bleed air overheat and induce automatic closure of the bleed system, for which the detection and system shutdown action was controlled by the Temperature Control Thermostat.

SAFETY RECOMMENDATIONS

As a result of this investigation, the Aircraft Accident Investigation and Inquiry Board made the following safety recommendations:

CAAP-FSIS ensures that:

1. The operator implement the Preventive Maintenance and Reduction of Dual Bleed Loss issued by AIRBUS to prevent the occurrence of Dual Bleed Loss as follows:

    a. Temperature Control Thermostat (TCT) filter cleaning with an Interval of 6,000 flying hours IAW MPD 361143-01-1 dated 01July 2013.

    b. New Tooling and AMM procedures for Fan Air Valve Functional Test - AIRBUS Bleed Test set PN 98L36103002000 IAW AMM 36-11-54-720-001-02 dated 01 November 2014.

    c. Temperature Control Thermostat Optimization - Improved design of TCT to provide maximum muscle pressure to the Fan Air Valve IAW SB 36-1061 dated 30 May 2008.

2. The operator implement the Preventive Maintenance and Reduction of Dual Bleed Loss issued by LIEBHERR to prevent the occurrence of Dual Bleed Loss as follows:

    a. Fan Air Valve Modification - Introduction of cover flange to prevent early leakage IAW VSB 6730F-36-00/01 dated 20July 2007 / 01 September 2008.

    b. Temperature Control Thermostat - Shifted to higher temperature (from 235C to 270C) limitation function to provide more muscle pressure to open the Fan Air Valve in case of over temperature IAW VSB 341-36-06 dated 20 August 2008.