

**AIRCRAFT ACCIDENT INVESTIGATION COMMITTEE**

**MINISTRY OF TRANSPORT**

**INTERIM REPORT**

**ONE TWO GO AIRLINES COMPANY LIMITED**

**MCDONNELL DOUGLAS DC-9-82 (MD-82)**

**HS-OMG**

**PHUKET INTERNATIONAL AIRPORT**

**THAILAND**

**16 SEPTEMBER 2007**

The investigation process of Aircraft Accident Investigation Committee follows the procedures in ICAO ANNEX 13 AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION which the objective of the investigation of an accident or incident shall be the prevention of accidents and incidents.

It is not the purpose of this activity to apportion blame or liability.

## Synopsis

On 16 September 2007, at approximately 14:30 hours, a Boeing MD-82 of One Two Go Airlines Company Limited (One Two Go), nationality and registration mark HS-OMG, departed from Don Mueang International Airport to Phuket International Airport on a domestic flight OG 269 with 130 crew and passengers on board.

At 15:40:10 hours, during a go-around at Phuket International Airport, the airplane veered off and hit an embankment located in the North of runway 27, broke up in flames, and was completely destroyed. As a result, 90 crew and passengers died, 26 were seriously injured and 14 suffered minor injuries.

The Aircraft Accident Investigation Committee of Thailand (AAIC) conducted an investigation and notified the International Civil Aviation Organization (ICAO) and the National Transportation Safety Board (NTSB) of the United States of America as the State of airplane and engine Design and Manufacture. In addition, the United States sent accredited representatives from NTSB and Federal Aviation Administration (FAA), as well as advisors from Boeing Commercial Airplanes Company Limited and Pratt & Whitney Company Limited to participate in the investigation.

Moreover, the AAIC notified the representatives of the United Kingdom, Australia, Japan, French, State of Israel, Northern Ireland, Islamic Republic of Iran and Republic of Indonesia as the States having suffered fatalities or serious injuries to theirs citizens.

LOCAL TIME IS USED IN THIS REPORT

## Probable Causes

After thorough investigation, the AAIC determined that the probable causes of accident are as follows:

1. the flight crew did not follow the Standard Operating Procedure (SOP) of Stabilized Approach, Call Out, Go Around, and Emergency Situation as specified in the Airlines' Flight Operation Manual (FOM).
2. the Take Off/ Go Around (TO/GA) switch was not pressed, resulting in the failure of increasing in airspeed and altitude during the go around. Also, there was no monitoring of the change in engine power and movement of throttle levers, especially during the emergency situation.
3. the flight crew co-ordination was insufficient and the flight crew had heavy workloads.
4. the weather condition changed suddenly over the airport vicinity.
5. the flight crew had accumulated stress, insufficient rest, and fatigue.
6. the transfer of aircraft control took place at a critical moment, during the go around.

## Safety Recommendations

### **1. The Orient Thai Airlines Company Limited and One Two Go Airlines Company Limited should:**

1.1 establish Cockpit Resource Management (CRM) course, approved by the Thai DCA, for all related personnel in every concerned sections. The course should comprise of initial and recurrent trainings, having contents according to ICAO requirements.

1.2 strictly train flight crew according to the flight crew training course and flight procedures in SOP.

1.3 amend the Operating Procedures on 'Transfer of Control during Critical Phase of Flight' in SOP to be most clear and definite

1.4 perform the pilot training check, as appointed by the Thai DCA, to meet applicable standards, especially the pilot proficiency check.

1.5 use a flight simulator that could simulate the systems, equipment and instruments of the airplane with the same configuration the Airlines operates.

1.6 arrange the crew schedule, according to the requirements in Flight Time and Flight Duty Periods Limitation, by establishing a checking system with advance warning function before exceeding the limitation. The system should also enable the flight crew to check their status.

1.7 establish a Safety Management System (SMS) in order to identify and mitigate the risk leading to any accident or incident, and to improve the safety of flight operations to meet the required standards.

1.8 direct all management levels to encourage personnel to have unique corporate culture in having values and beliefs to perform their jobs, in accordance with laws and regulations, and to report any wrongful misconduct where may come of use for improving task efficiency and increasing safety performance. This could be done through training and motivation

**2. The Airport of Thailand Public Company Limited should:**

2.1 expedite the improvement of runway strip to meet the standard prescribed in Annex 14 of ICAO or revise the category of instrument approach procedure to suit the current runway strip. The Company shall also establish a Safety Management System (SMS) in order to identify and mitigate the risk.

**2.2 Rescue and Fire Fighting**

2.2.1 construct more access roads across the ditch along runway 27 to inaccessible areas at Phuket International Airport to facilitate rescue and fire fighting team to reach any accident area in due time. The Company should also arrange the rescue and fire fighting exercise in those areas in order to identify and mitigate the difficulties in rescue and fire fighting.

2.2.2 include the Emergency Medical Institute of Thailand (formerly Narenthorn Center), which is the government institute that co-ordinates and provides medical emergency service, in the Airport Emergency Plan.

2.2.3 perform a full scale emergency exercise which should cover the participation of all responsible sector and personnel in compliance with the Airport Emergency Plan in most efficient manner, when an accident occurred.

**3 The Department of Civil Aviation of Thailand should:**

3.1 oversee the operation of One Two Go Airlines Company Limited and Orient Thai Airlines Company Limited in order to improve their safety efficiency. The DCA should also issue regulations for the guidance of CRM training.

3.2 Improve the measure for regulating and overseeing the air operators under the DCA supervision to achieve the most efficiency.

3.3 co-ordinate with the Aero Thai Company Limited to specify operational guidelines of 'Crash on Airport' into 'Manual of Air Traffic Services'. The guidelines should also be detailed in accordance with Doc. 9137/An898 Airport Service Manual, Part 7: Airport Emergency Planning, Chapter 4, Responsibility and Role of Each Type of Emergency.

3.4 co-ordinate with the Meteorological Department to improve the maintenance system of the Low Level Windshear Alert System (LLWAS) installed at every airport to resume its serviceability as soon as possible. Furthermore, the Department should consider the installation of efficient LLWAS with advance system to cover other airport, as considered necessary.

3.5 co-ordinate with the following medical centers that perform medical examinations on post-accident of flight crew involved.

3.5.1 Institute of Aviation Medicine, The Royal Thai Air Force (RTAF) to

3.5.1.1 perform a physical examination on post-accident of surviving flight crew.

3.5.1.2 perform an autopsy and collect samples for laboratory examination together with physicians from Ministry of Public Health and/or physicians from the Institute of Forensic Medicine, Royal Thai Police.

3.5.2 Institute of Forensic Medicine, Royal Thai Police to

3.5.2.1 collect and send samples of autopsy to the Institute of Aviation Medicine, RTAF for further laboratory examination, in case where the Institute of Forensic Medicine, Royal Thai Police arrive at the accident site first.

3.5.2.2 perform an autopsy and collect samples for laboratory examination together with the Institute of Aviation Medicine, RTAF and/or physicians from Ministry of Public Health.

3.5.3 Ministry of Public Health to

3.5.3.1 collect and send samples of autopsy to the Institute of Aviation Medicine, RTAF for further laboratory examination, in case where physicians from Ministry of Public Health arrive at the accident site first.

3.5.3.2 perform an autopsy and collect samples for laboratory examination together with the Institute of Aviation Medicine, RTAF and/or the Institute of Forensic Medicine, Royal Thai Police.