

## **Press Release**

**Title:** Manang Air, MI-8MTV-1, 9N-AHT Helicopter Accident at Rodikot Helipad in Humla District on 15th November 2009.

### **Executive Summary:**

A MI-8 MTV helicopter owned and operated by Manang Air with Registration 9N-AHT was on a cargo charter flight from Surkhet to Rodikot in Humla District in the morning of 15th November 2009. This was the first flight for this crew member to Rodikot helipad. On course of approaching from south the PIC made a short circuit for landing. In the final phase landing, the helicopter became unstable due to heavy load with uneven speed. The PIC tried hard to manage the power and speed. He could not achieve the desired engine power despite applying maximum collective pitch. The helicopter then started to swerve towards left due to insufficient engine power as well as loss of Tail Rotor Effectiveness. The PIC consequently applied maximum right pedal so as to bring the helicopter towards the proper axis. This application of maximum force to correct the left turning tendency of the helicopter exerted excessive stress on tail boom that caused the detachment of tail gear box from the pylon. As a result, the helicopter went out of control, spun towards left and skidded down from the south edge of the helipad. Finally the helicopter came to rest on a big rock about 50 meters below south of the helipad.

A rescue operation was carried out immediately after the accident. There was single fatality of the F/E, two crew members suffered fairly serious injuries and other three escaped with minor injuries. No third party damage was observed in the accident.

Pursuant to the Civil Aviation (Accident Investigation) Rules, 2024 B.S., the Government of Nepal constituted a five member Accident Investigation Commission on 16 November, 2009 to investigate the accident. The commission commenced its investigation task on 17 November, 2009.

The accident was notified to the International Civil Aviation Organization (ICAO) on 16 November 2009 and Interstate Aviation Committee, Moscow, Russia (State of Manufacturer/ Design) on 19 November 2009. During the course of Investigation, the Commission has made three Interim safety recommendations to be implemented by CAAN. The Commission has made some safety recommendations to concerned agencies regarding safety enhancement and to prevent such accidents in the future.

This report is submitted to the Ministry of Tourism and Civil Aviation, Government of Nepal, on 3<sup>rd</sup> March 2010.

### **Causes of the accident**

The Commission determined that the probable cause of this accident was the detachment of tail gear box from the Pylon exerted by excessive stress on Tail boom. This was due to the application of maximum force to correct the left turning tendency of helicopter created by the Insufficient Engine Power and loss of Tail Rotor Effectiveness while landing.

The contributing factors for this accident were:

- Load Factor

- Improper flight preparation
- Lack of Crew coordination

### **Safety Recommendations**

#### **To Manang Air Pvt. Ltd.**

- Engineering Director, QA chief and Operation Director position should be designated to different persons having proper qualifications and experience on type.
- The management should be more responsible to the flight safety by providing required training to its technical personnel and timely making corrective actions on findings made during safety audit by CAAN.
- Mechanism should be developed so as to improve coordination among flight crew, maintenance staff and dispatcher/marketing personnel during preparation of flight. Aircraft maintenance and documentation process of Engineering and Quality Assurance Departments should be adhered as specified in Engineering Manual.
- When foreign technical personnel are substituted there should be a proper handover and takeover briefing procedure.

#### **To MI-17 Operators**

- There should be a proper program to develop Nepalese technical manpower within a specified time frame.
- Standard Operating Procedure (SOP) should be developed for the first commercial flight to be operated in the helipad located at high altitude and difficult terrain.
- Proper flight preparation and operation procedure should be developed and strictly followed for high altitude helipads located at difficult terrain.
- Calibration of FDR unit should be performed as stipulated in technological sheet number 603 of MI-8 Maintenance Manual.

#### **To Civil Aviation Authority of Nepal**

- It should be ensured that serious lapses found during the safety audit must be corrected by the airline operators within the stipulated time frame.
- The serviceability of FDR, CVR, ELT and HF should be ensured in all MI-17 helicopters.
- There should be a mandatory provision of Simulator training to all flight crew members to increase proficiency in handling emergency situations and CRM practice in the cockpit.
- A provision should be made in FOR regarding flight preparation, safe payload margin and recce of the landing site while operating in a high altitude helipad of limited dimension.
- Conditions of all high altitude and remote area helipads should be reviewed by assessing their serviceability in terms of surface, obstructions and dimensions.
- CAAN should make follow up actions for the implementation of safety recommendations made by Accident Investigation Commission on regular basis.

#### **To Ministry of Tourism and Civil Aviation**

- The implementation status of recommendations made by different Accident Investigation Commissions in the past should be monitored.
- There should be a mechanism for the periodic evaluation of the economic, technical and operational status of the airline operating agencies for the development of safe, competent and sound air transport system in the country.