



MINISTRY OF TRANSPORT AND INFRASTRUCTURE

AIR ACCIDENT INVESTIGATION

INTERIM REPORT

On 2 July 2014 at 0414 local time¹, 5Y-CET, Fokker F28 Mark 50, a cargo flight, operated by Skyward International (SI), crashed into a building shortly after takeoff from Jomo Kenyatta International Airport (JKIA), Nairobi, Kenya. Visual meteorological conditions prevailed and the airplane was on an IFR flight plan. The 4 persons on board were fatally injured. The airplane was destroyed and there was no fire. The flight was destined for Mogadishu, Somalia.

The investigation revealed the airplane departed runway 6 and climbed slowly attaining no more than about 50 feet above ground. The flight path continuously deviated left of the extended runway centerline at an airspeed of 100 knots, which was also the lift off airspeed. The airplane subsequently collided with the building, about 2.1 kilometers north-northeast of the runway departure end. The airplane impact attitude with the building was about a 120° left roll angle.

The cockpit voice recorder (CVR) data revealed aural warning alerts² began about 8 seconds after the takeoff roll was initiated of which thereafter the flight crew also made reference to indications associated with visual warning alerts. However, despite the alerts the flight crew continued the takeoff. The flight data recorder data showed that no. 1 propeller rpm reduced from 100% to 50% where it stabilized at for the remainder of the flight. The decrease in propeller rpm corresponded with an increase of the no. 1 engine torque to about 110% along with the occurrence of the aural warning alerts. According to radar data, the liftoff occurred near the runway end³. The no. 2 engine operated normally throughout the entire flight.

The investigation revealed that the day before the accident, the airplane was repositioned from Nairobi-Wilson Airport to JKIA⁴. The flight was commanded by the accident captain⁵. During that flight, the CVR data disclosed warning alerts similar to those of the accident flight accompanied by the flight crew

¹ All time herein are based on local time using the 24 hour clock unless otherwise specified.

² The cautions lights were determined to be level 3 warning alerts, which according to the AFM requires takeoff to be rejected. The warnings repeated at 2-3 second intervals for the remainder of the flight.

³ The runway length is 4,117 meters.

⁴ FDR data indicates the airplane was operated a total of about 20 minutes 42 seconds and the actual time airborne was 3 minutes 48 seconds.

⁵ The accident first officer was not on the flight.

discussion on the interpretation and significance of the alerts. The investigation did not reveal any actions undertaken before the accident to address any irregularities that may have been associated with the warning alerts during the repositioning flight.

Calculations of the aircraft weight and balance that included the post-accident measured weights of the cargo determined that at takeoff the airplane weight was about 500kg⁶ over the maximum certified gross weight.

The captain held a valid airline transport pilot certificate. He had about 14,531 total hours, including 13,397 hours as pilot-in-command (PIC). He had about 6821 hours accrued as PIC on the FK50. The captain had flown the accident airplane about 77 hours during the previous 60 days. The first officer held a commercial pilot license. He had about 823 total hours, which included 513 hours second-in-command time accrued in FK50. He had flown in the accident airplane about 18 hours during the previous 60 days.

The accident airplane had about 27,243 and 26,358, respectively, of total hours and total cycles since new. The no. 1 and no. 2 engines, respectively, had 19,343 and 32,145 hours since new. The no. 1 propeller had about 33,208 and 7,064 hours, respectively, since new and since overhaul, the airplane was acquired in April 2014 from an operator in The Netherland and ferried to Kenya in early May 2014 where it was subsequently operated for 92 hours at the time of the accident.

The investigation has and will continue to focus on aircraft performance, flight crew training and experience, cargo loading procedures, and the determination of the mechanical integrity of the no. 1 propeller operating system. The final report is estimated for completion by 30 November 2015.

Chief Investigator of Accidents 10 July 2015



⁶ The investigation revealed an estimated 100 kg of the cargo was pilfered from the airplane wreckage.