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PRELIMINARY ACCIDENT REPORT: EMBREAR 190 MOZAMBIQUE AIRLINES C9-EMC, FLIGHT 470 AT MBWABWATA NATIONAL PARK, ON THE 29TH NOVEMBER 2013.

Status : Preliminary
Date : 29 November 2013
Time : 11:16:26 UTC
Type : Embrear EMB-190
Operator : Mozambique Airlines (LAM)
Registration : C9-EMC
Serial number : 19000581
Engine s/no. : 294549-R
Year built : 2012
Crew : Fatalities: 6 Occupants: 6
Passengers : Fatalities: 28 Occupants: 28
Total fatalities : Crew: 6/ Occupants: 28
Airplane damage : Aircraft destroyed
Location : Mbwabwata National Park, Eastern Kavango - Namibia
Phase : Cruise
Nature : Scheduled Flight
Departure airport : Maputo International Airport, Mozambique
Destination airport : Luanda International Airport, Angola

Narrative

On the 29th November 2013 at 09:26 UTC, an Embrear ERJ-190 with registration number C9-EMC departed Maputo International Airport on a scheduled flight to Luanda, Angola. The flight operations were normal and the aircraft was cruising at FL380 (38000 ft).

The flight was in good radio communication with Gaborone Area control on frequency 126.1 MHZ.

The Radar Data revealed that at position EXEDU, which is a mandatory reporting point in the Gaborone FIR (Flight information region) the aircraft commenced a sudden descent from the normal cruising level of FL380.

Radar contact and voice contact was lost with ATS (air traffic services) search and rescue was instituted and thereby located the wreckage the following day in the Mbwabwata National park.

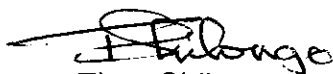
A team lead by Namibian Investigators were dispatched immediately, the onsite investigations commenced and were able to retrieve the FDR/CVR recorders. The recorders were sent to the NTSB (National Transportation Safety Board) laboratories in Washington DC for readout.

The flight data and cockpit voice recorders revealed the following:

1. The aircraft was operating at normal conditions and no mechanical faults were detected.
2. Minutes before the crash the F/O (first officer) left the cockpit for the lavatory and only the captain remained in the Flight Deck.
3. The altitude was manually selected three times from 38000ft to the final 592ft (below ground elevation).
4. Auto throttle was manually reengaged and throttle level automatically retarded and set to idle.
5. The Airspeed was manually selected several times until the end of the recording, which remained close to the Vmo (maximum operating limit speed).
6. The speed brake handle parameter indicates it was commanded to open the spoiler panels and remained in this situation until the end of the recording. This was manually commanded as the parameter monitors the handle position.
7. During all this actions there was audible low and high chimes as well as repeated banging an indication for call to enter the cockpit.

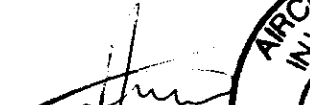
Conclusion

All action observed from the recorders requires knowledge of the aircraft's automatic flight systems as the entire descent was performed with the autopilot engaged. This displays a clear intent. The reason for all these actions is unknown and the investigation is still ongoing.



Theo Shilongo

Investigator-in-charge



Hafeni Mweshixwa

Co-Investigator

