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Reinvestigation of VT-ENF accident 08 June 2020

1 message

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The Director-General,
AAIB India,
New Delhi.

This is with ref. to the Aircraft Accident Final report of VT-ENF released for public viewing on the AAIB website. As a subject matter expert, I have read the report. I have found new evidence which will necessitate the re-investigation of the accident under The Aircraft (Investigation of Accident and Incidents) Rules, 2017.

The Cessna FA152 met with an accident soon after takeoff. Whereas the probable cause of the accident given in the final report is nonadherence of SOP by the crew leading to over banking while landing the investigators have not considered mechanical failure of the Flap mechanism.

New evidence

Media reports of the accident site and the aircraft show the flight controls of the aircraft deflected towards opposite sides. The three elements in question here are:

1. Flap position
2. Flap lever position (cockpit)
3. Aileron position

1. The actual flap position of LEFT FLAP shows fully extended whereas the RIGHT FLAP is fully retracted. This asymmetry will cause an inadvertent roll towards the right and the aircraft will bank right. Refer attached photo
2. The Flap lever position in the cockpit is slightly beyond the full retracted position. Refer photo.
3. The Left AILERON is deflected full UP indicating that the crew was attempting to correct the anomaly caused by asymmetry. The aileron deflection will cause the aircraft to roll left.

Therefore, prima facie this accident may not have been caused due to the crew over banking the aircraft leading to a stall but it could be a mechanical failure. The reasons and circumstances under which the FLAPS could develop an asymmetry needs to be investigated and the root cause determined in order to prevent further accidents.

Previous incidents of Flap Asymmetry have been recorded, Please refer to the attachment UK AAIB Bulletin No: 9/97 Ref: EW/C96/5/13 Category: 1.3

1. Cessna 172, Oct 85 - [AAIB Bulletin 1/86]:

Following a simulated overshoot at 4300 ft agl withfull (40°) flap, the flaps were retracted in 10° stages, retrimming between every stage.

On selection of 0° flap from 10°, a loud bang was heard and the aircraft rolled right. The instructor had to apply full left aileron and rudder and close the throttle to arrest the roll.

Having regained a wings level attitude he observed that the left flap was fully deployed.

Control during an emergency descent was just possible provided the power was below 1600 RPM.

After landing it was found that the aft roller bearing assembly at the outboard support for the left flap had fractured and broken up due to fatigue.

This had severely worn the flap track slot and pieces of the roller sleeve had broken off and jammed between the roller and the slot, resulting in overload failure of the flap up drive cable to the left flap which was then free to blow back to the full flap position.

In the accident of VT-ENF, the position of the throttle and mixture indicate that the crew had applied FULL power. This may have aggravated the situation leading to loss of control. As stated in the quote from the AAIB Bulletin 1/86, the descent is controllable provided the engine RPM is below 1600 RPM, which is not the case of VT-ENF.

This new evidence and previous such incidents do necessitate the re-investigation of the accident of VT-ENF.

Looking forward to hearing from you.

Best Regards,

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3 attachments



VT-ENF Flight Control.jpeg
145K



odisha-aircraft-crash.jpg
30K

 **dft_avsafety_pdf_502394.pdf**
115K