



# AIB Bulletin

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<b>AIB Bulletin No. 6</b>	<b>Ref: CAV/CC/6/06</b>	<b>Category: 1.2</b>
<b>Aircraft Type &amp;Reg:</b> 8112055	PIPER PA 31-325	<b>Reg. 5H-ILS</b> <b>Serial No. 31-</b>
<b>No. &amp; type of Engines:</b>	Two Lycoming LTIO-540 F2BD	
<b>Year of Manufacture:</b>	1981	
<b>Date and Time (UTC):</b>	25 <sup>TH</sup> July 2006 at 1301 hours	
<b>Location:</b>	Kilimanjaro International Airport	
<b>Type of Flight:</b>	Training Flight	
<b>Persons on Board:</b>	<b>Crew 1</b>	<b>Passengers 1</b>
<b>Injuries:</b>	<b>Crew Nil</b>	<b>Passengers Nil</b>
<b>Nature of Damage:</b>	Damage to left propeller and belly antennas	
<b>Commander's License:</b>	CPL	
<b>Commander's Age:</b>	24 years	
<b>Commander's Experience:</b>	369 hours of which 40 were on type	
	<b>Last 90 days: 108 hours</b>	
	<b>Last 28 days: 46 hours</b>	

**Information Source:** Telephone call from Operator

**ALL TIMES UTC**

## History of the Flight

5H-ILS was on a training flight (route training: Dar es Salaam/Kilimanjaro/Dodoma). The aircraft took off from Dar es Salaam for a direct flight to Kilimanjaro at about 0821 hours with one pilot and one passenger (A technician working with the Tanzania Government Flight Agency). A preflight inspection had earlier been carried out by the pilot and the aircraft was refueled to full tanks in preparation for the cross country flight. The pilot had been instructed by his training captain who at this material time was out of

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*The Bulletin contains facts relating to the accident, which have been determined up to the time of issue. This information is published to inform the public and the aviation industry of the general circumstances of the accidents at the preliminary/stage and must necessarily be regarded as tentative and subject to alteration or correction if additional evidence becomes available.*

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the country that he could continue carrying out route exercises in the Coastal region (Zanzibar, Tanga, Pemba, Dar es Salaam and Mtwara) and inland regions as well (Kilimanjaro and Dodoma). The pilot had earlier been cleared for solo flights by his training captain.

Flying under visual flight rules, 5H-ILS climbed to flight level 125 and continued on its flight to Kilimanjaro International Airport. The flight was uneventful. The aircraft subsequently descended from flight level 125 and as it reached flight level 90 it experienced severe turbulence. It continued to descend, still experiencing turbulence. The aircraft was later instructed by KIA to join right base for Runway 09. As it was close to turning final it was told that it was to be No.2 on final if the pilot sighted No.1.

The pilot could not sight No.1 on final and therefore requested to orbit. Immediately thereafter he heard No.1 aircraft being given its landing time. With that information, 5H-ILS did not go on to orbit. Instead, he turned final. The wind condition read to him was said to be calm but the pilot's experience was different. The aircraft continued its approach, experiencing substantial cross wind (7-10 kt) and turbulence. The pilot said he carried out all the pre-landing checks and continued on his approach for landing. As he reached his flaring point he still felt not comfortable with the approach. This was because he was still fighting with the wind and turbulence and at the same time correcting for updrafts. He eventually decided to overshoot and go-round. The pilot said that the speed had however decayed to the extent that he could not initiate a high rate of climb for fear of stalling. He therefore flew at low level to build speed and then initiated a right hand low level circuit turn.

At this point the pilot reckons that the controller was also instructing him to go-round for a low level circuit as the landing gear was not lowered down, but could not remember to have acknowledged since he (the pilot) had already decided to go-round due to an unstable approach.

After building speed the aircraft climbed to 250 ft and turned downwind. The pilot selected gear down and then turned final runway 09. He continued his approach with a lower speed for better final approach and eventually landed at 0958 hours. The aircraft was taxied to the apron at Kilimanjaro and normal shut down was carried out. The pilot disembarked and during his post flight walk round he noticed that the RH propeller blades were damaged. The blades were all bent.

The pilot contacted the Tanzania Government Flight Agency engineer in charge of the aircraft and described the damage to him. He was told by the engineer to wait for his call back. When he called back on phone he asked the pilot the extent of the propeller blades bends. The pilot told him it was about 2 inches on each blade. The pilot was then asked if he were comfortable to fly the aircraft back in the condition. The engineer then instructed the pilot to carry out engine ground run and observe if there were any unusual vibrations. If no unusual vibration then he should fly back to Dar es Salaam.

The engineer himself testified that the pilot told him on the telephone that there were minor scratches on the propeller tips and that he had experienced no problems with engines throughout the flight.

The pilot carried out engine ground run at maximum power and observed nothing unusual in the behaviour of the engine. He then called tower to alter his flight plan and for clearance to fly back to Dar es Salaam.

The aircraft took off from runway 09 at 1118 hours. According to the pilot, the take off was normal and the en route engine performance was normal. 5H-ILS eventually landed at 1246 hours on runway 14 at Dar es Salaam. It was taxied to the Government Hangar and post landing checks carried out satisfactorily.

The ground engineer meeting the aircraft observed even some 3 radio communication antennas were also damaged, the pilot had noticed this damaged before his take off in Kilimanjaro.

### **Damage to the aircraft**

The RH propeller blades were all found bent due to scratching the runway. Two of the blades had 3 inches rearwards facing bends at the tips. The remaining blade had 3 inches forward facing bend.

Three radio antennas on the aircraft underbelly were found damaged. All the antennas had their materials at the tips chewed up due to contact with the ground.

The aircraft landing gears inclusive of the wheel wells were free of any obvious damage. There was no further damage on the aircraft.

### **The Weather**

The weather at the time of the incident was a normal weather during the time of the day and time of the year. It is not considered as a contributory factor in this incident.

### **Analysis**

The flight from Dar es Salaam to Kilimanjaro was normal. However, it would appear that the incident occurred during the final approach and attempted landing while the pilot was coping with turbulence from flight level 90 on his descent to near touch down. The pilot accepts to have been instructed by the controller to go-round as he did not have his landing gear down. This situation was realized at the time the aircraft speed had decayed considerably. During his overshoot the aircraft continued to sink and momentarily causing the underbelly-mounted antennas to scratch the runway before gaining speed and height. And at the same time due to the cross wind and turbulence experienced, the RH propeller blades tips also momentarily scratched the runway causing the tips to bend.

The pilot did not like to continue flying after the incident and has since switched to studying business administration.

## **Safety Recommendations**

It is recommended that:

1. The pilot be given an extra training on the aircraft handling, use of check list should be emphasized to preclude oversights.
2. The pilot should be trained to enhance his technical knowledge in order to appreciate defects and limitations for his decision making.
3. The engineer and the engineering organization which handled the pilot are strongly warned on consequences of clearing an accident aircraft for flight before an engineering assessment of the damage is made.
4. TGFA pilot training programmes are reviewed by the TCAA in order to sight weakness in its management.
5. TGFA should be reminded to follow up accident/incident procedures as stipulated by the TCAA.