



# AIB Bulletin

**AIB Bulletin No.** 2/00      **Ref.:** CAV/ACC/2/00      **Category:** 1.3  
**Aircraft Type & Reg.** Piper PA-34-200T      **Reg.** 5H-JET      **Serial No.** 787 0345  
**No. & type of Engines:** 2 Continental L/TSIO-360-KBCEB  
**Year of Manufacture:** 1978  
**Date and Time (UTC):** 24 May 2000 at 1425 hours  
**Location:** Mafia airport, Tanzania  
Lat. 07° 54.91'S      Long. 39° 40.01'E  
**Type of Flight:** Air Charter  
**Persons on Board:** Crew - 1      Passengers - 2  
**Injuries:** Crew - NIL      Passengers - NIL  
**Nature of Damage:** Substantial damage to both wings, engine mounts and nose landing gear.  
**Commander's Licence:** ATPL  
**Commander's Age:** 46 years  
**Commander's Experience:** 12,500 hours of which 600 were on type  
Last 90 days 120 hrs  
Last 28 days 14 hrs  
**Information Source:** AIB field investigation

## ALL TIMES UTC

5H-JET took off from Dar es Salaam International airport for a charter flight to Mafia Island. It was carrying one pilot and two passengers. The flight was being conducted under visual flight rules, cruising at FL 075. The forward leg of the flight was uneventful.

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 pilot said that as he descended through FL 15 he experienced strong gusting winds from the south/south west.

The wind sock was visible and he estimated the wind speed to be above 15kt. He made the final approach at about 95kt and 20 degrees flaps and he cut power at about 200m from the beginning of runway 15.

The pilot further testified that just before touch down he experienced a severe wind shear which brought the aircraft down on the runway harder than he expected. He was of the opinion that it was a hard landing. However, there were no injuries to the occupants.

After taxiing to the apron and disembarking the passengers the pilot made a visual inspection of the aircraft including the whole of the landing gear system. When nothing abnormal was noticed he flew back to Dar es Salaam.

During the return flight slight vibrations were felt on the flight deck and further "observations" were made during the next flight. There were no further flights because it was low season. When 5H-JET went for a scheduled check on 29 May 2000 some heavy landing damage was discovered.

Visual inspection showed wrinkles on the skins of both wings. The right propeller was slightly higher than the left propeller. The positions of wrinkles indicated structural damage so that the aircraft could well be a probable write-off.

Further examination led to the following observations:

#### **RIGHT WING**

1. The top skin at wing stations 24.24 to 71.52 was buckled and bent.
2. The inboard mount attachment was buckled.
3. Measuring the engine position in respect to the wing and the difference from the left engine, the onboard attachment at the firewall had moved down  $\frac{1}{2}$  inch, the inboard front engine mount had moved down 1 inch.

#### **RIGHT WING REAR SPAR**

At station 24.24 the spar had moved up approximately  $\frac{1}{4}$  inch.

#### **LEFT WING**

Bottom skin at wing station 24.24 and wing station 71.52 buckled.

#### **NOSE LANDING GEAR**

Center nose landing gear beam attachment point had moved up approximately  $\frac{1}{2}$  inch.

The chief pilot (who was involved in this accident) further testified that this aircraft was becoming difficult to handle. Since it was involved in a series of accidents in 1998, the aircraft had not been flying in a balanced straight-and-level flight condition. However, this anomaly was not reflected in the flight test reports conducted every year during the renewal of the aircraft Certificate of Airworthiness.

During the flight test conducted on 7 September 1999 for C of A renewal the aircraft performance was documented as satisfactory. In the column for ANY UNUSUAL BEHAVIOUR of the Test Flight forms the word "NO" was recorded.

The accident record for this aircraft is as follows:-

DATE	LOCATION	EVENT
1. UNKNOWN	UK	Aircraft reported by current operator to have been involved in an accident (under registration G-OBED). It was subsequently grounded for four years before it was repaired and transferred to Tanzania in June 1995.
2. 3.12.1995	DSM International	Aircraft extensively damage in heavy landing at Dar es Salaam International Airport.
3. 16.5.1998	DSM International	Nose landing gear failed to extend. Aircraft landed on nose and mains. Lower nose section and propellers damaged.
4. 24.10.1998		Heavy landing after nose baggage door opened in flight.
5. 24.10.1998	Ras Kutani	Port wing damaged when the aircraft collided with a car whilst taxiing.
6. 26.10.1998	Siwandu airstrip	Aircraft extensively damaged following heavy landing.