



# AIB Bulletin

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**AIB Bulletin No.3**

**Category:** 1.2

**Aircraft Type:**

**Serial No.** 220

**No. & type of Engines:**

**Year of Manufacture:**

**Date and Time (UTC):**

**Location:**

northern Tanzania

**Type of Flight:**

**Persons on Board:**

**Injuries:**

**Nature of Damage:**

parts caused by gun

**Commander's Licence:**

**Commander's Age:**

**Commander's Experience:**

5,500 were on type.

**Information Source:**

operator

**Ref:** CAV/ACC/3/06

Pilatus PC12/45 **Reg.** 5H-EXC

One PT6A-67B

1998

31 March 2006 at 1045 hours

Buhemba airstrip near Bunda,

**(01 46 23.1S 034 05 51.7E)**

Air charter

**Crew** -1

**Passengers** - 2

**Crew** - Nil

**Passengers** - Nil

65 holes and dents in various

fire and shrapnel.

CPL

42 years

10,300 hours of which about

**Last 90 days** 200 hours

**Last 28 days** 60 hours

Telephone call from the

**ALL TIMES UTC**

**History of the Flight**

The aircraft was operating a charter flight to transport some cargo of gold from Buhemba Gold Mine to Dar es Salaam. It flew from Dar es Salaam and landed at Buhemba at 1032 hours with one pilot and two guards.

The pilot said that on arrival at Buhemba at 1020 hours every thing appeared normal and the two guards were picked up to go and fetch the gold shipment. They

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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 circumstance of the accident 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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returned after about 20 minutes and the gold was loaded into the aircraft through the rear cargo door. After the gold was loaded, the pilot closed the rear door. At this time one guard was already inside the aircraft and the other was outside. As soon as the pilot closed the rear door the guard who was outside boarded the aircraft through the front door. The pilot then followed the boarding guard. Before he had started climbing the steps on the front entrance, he heard popping sounds. He jumped into the aircraft and the two guards instructed him to lie on the floor and to close the door. This he did.

There followed a lot of noise from outside and, after a while, there was shouting from outside. The voices contained orders to open the door. One of the voices recognized by the pilot was that of a guard from the mines. As the pilot reached to open the door, it was opened from the outside. Outside was the guard from the mine and another person who was holding a weapon. The gunman was threatening to shoot the door open if it was not opened for him. There followed more shouting orders to come out and locate where the cargo was.

The pilot deplaned and was made to lie face down on the ground. With more shouting about the cargo, a guard ordered the pilot to open the rear cargo door. He got up, opened the rear door and proceeded to lie down without looking up at any time. There followed yet more shouting and shooting and the sound of something being thrown down the aircraft front steps.

The noise later died down. The mines people then started shouting to find out whether every body was safe. A small group of about seven survivors, including the pilot, moved off into the bush to be out of the way, just in case the attackers returned. The attackers did not return. After about 10 minutes the group was called on the radio and told it would be safe to move to the mine offices.

The number of attackers was estimated to be between five and seven. They were armed with AK 47 rifles and hand grenades. There were about 20 guards from the Buhemba Gold Mines around the airstrip, who were armed with shot guns. They disappeared into the surrounding bushes when the first shots were heard.

### **Damage to the aircraft.**

The aircraft was pierced at about 40 locations by rifle bullets fired by the attackers. There were another 25 dents which were believed to have been caused by shrapnel from the exploding grenades. Two grenades went off on the ground, one about six metres to the right of the aircraft and the other 20 metres north east. Grenade craters were visible on the ground.

Much of the gun fire was directed at the rudder and the elevators. Some of the bullets hit the fuselage. The wind screen was hit three times. However, none of the bullets penetrated through the wind screen. There was a dent on one propeller blade which did not appear to have been caused by a bullet strike.

Further examination showed that the engine and the avionics bay were not damaged. All the control cables and the hydraulic lines also sustained no damage.

The spars of the rudder and the elevator were not hit. The metal structure of the wings was not damaged.

The aircraft was subsequently flown unpressurized to its maintenance base at Lanseria in South Africa.

Detailed assessment at Lanseria showed that the aircraft had suffered additional damage to the interior, the seats and some

composite fairings. Both side windows, the DV-window and some cabin windows were damaged beyond repair. With the exception of some damage to frame 30 and the left cockpit longeron, the damage appears to be confined to skin elements. The engine mount was also hit by a bullet that caused a small dent in a bracket.

The manufacturer, Pilatus Maintenance, said that the aircraft fuselage was repairable using a jig. Due to the additional small damages inflicted by shrapnel, patch repairs were not considered a viable option. All damaged skin panels with holes and dents have to be replaced.

### **Buhemba airstrip**

Buhemba airstrip, elevation 4502 feet, has one runway 16/34 which is 1200 feet wide and 30 metres wide. The surface is gravel and was in very good condition at the time of the accident.

Owned by the Buhemba Gold Mine, the airstrip is used to support mining operations. There is tall grass and some bushes just beyond the edges of the runway. The attackers are reported to have approached the aircraft on the apron from a nearby bush.

### **Analysis**

Although no occupants were injured, the attack represents the first and very serious security concern in the country. It is a serious concern because the attackers were armed with military weapons. The military weapons included hand grenades and AK 47 assault rifles.

The Buhemba Gold Mine Company had taken security measures at its airstrip. They included a manned observation post near the apron and the placement of armed guards at all corners of the runway when high value loads are being shipped.

However, the presence of tall grass and bushes near the runway served to provide cover for armed robbers before the attack.

Some mining companies have more elaborate security preparations. At the airstrip belonging to one of these, the apron

is located at the beginning of the runway. The shipping aircraft always parks at the beginning of the runway near the apron in the “ready to go position” with one engine running. Cargo is loaded and signed up in less than five minutes, followed by immediate take off. Grass surrounding the airfield is kept short and all bushes are cleared. All the areas surrounding the airfield are patrolled all the time during flight operations.

### **Conclusions and safety recommendations**

In the light of what happened to 5H-EXC and the general increase in banditry in the country, operators of aircraft and aerodromes, particularly those in remote areas, should take note and address security issues as soon as feasible.

Mining operators should institute more sweeping measures around their airstrips including such areas where bandits may lay in ambush before the landing of precious cargo aircraft. Similarly, they should identify all high risk areas and take appropriate mitigation action. They should also maintain surveillance on their staff members to mitigate against them passing sensitive transportation plans to potential bandits.