



THE UNITED REPUBLIC OF TANZANIA
 MINISTRY OF COMMUNICATIONS AND TRANSPORT
 ACCIDENT INVESTIGATION BRANCH

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AIB Bulletin

AIB Bulletin No. 2 **Ref.:** CAV/ACC/2/2002 **Category:** 1.3

Aircraft Type: Cessna U206G **Reg.** 5H-RKE **Serial No.** 5849

No. & type of Engines: One Continental IO-540F

Year of Manufacture: 1980

Date and Time (UTC): 16 May 2002 at 08:30hrs

Location: Sitalike airstrip, Katavi National Park, Mpanda District
 (06°37.87'S 31°07.95'E)

Type of Flight: Private

Persons on Board: **Crew - 1** **Passengers - 4**

Injuries: **Crew - Nil** **Passengers - Nil**

Nature of Damage: Damage to nose and left main landing gears as well as the baggage pod.

Commander's Licence: ATPL

Commander's Age: 50 years

Commander's Experience: 9400 hours of which 1200 were on type

Last 90 days	84	hrs
Last 28 days	30	hrs

Information Source: Telephone call from Tabora Tower

ALL TIMES UTC

(*) The aircraft was taking off from ^{S'}sitalike airstrip for a flight to Tabora. It was carrying a pilot and four passengers. The day was described as bright and sunny.

The pilot said that prior to take-off two vehicles were dispatched to chase away some animals which were on the runway. When the vehicles reached the end of the runway and were satisfied that the runway was clear of all beasts, they flashed their head lights. This was a signal to indicate that it was all clear for take-off.

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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The pilot said that the initial phase of the take-off roll was normal. With 10 degrees of flaps he had targeted rotation at 65 knots. When the aircraft was accelerating through 55 knots, he saw two impalas running to cross the runway from the right. He immediately raised the nose to prevent the propeller from hitting the animals and at the same time changed the flap setting from 10 to 20 degrees. A stall warning horn came on followed by impact with the beasts. However, the aircraft remained airborne taking advantage of a depression just beyond the end of the runway. A trail of blood could be seen on the left main landing gear.

One of the Katavi Park Game wardens who escorted the pilot and passengers to the airfield reported to have seen three impalas running across the runway. At first it looked as if the aircraft would clear the beasts. However, they struck the landing gear and the baggage pod in the belly because of their hopping motion. One impala fell on the ground but managed to rise and run away into the forest. The remaining two died on the spot.

Since the full extent of the damage to the aircraft could not be assessed from inside the aircraft, the pilot decided to proceed to Tabora where there were rescue and fire fighting facilities as well as means of communication with the ground rescue teams. The flight to Tabora was normal and the aircraft did not show any handling problems. The aircraft swayed to the right on touchdown on runway 13 but the pilot managed to control the ground roll till it stopped. However, taxiing became impossible due to the damage to the landing gear and the aircraft had to be pushed backwards to take it to the apron.

There were no injuries among the occupants. Damage to the aircraft was confined to the left main landing gear which was staggered 6cm behind at the fuselage, the nose landing gear which had rotated about 30 degrees to the right and could not be straightened for taxiing, and the baggage pod which was partially ripped off the fuselage.

Sitalike airstrip, elevation 4300 feet, has one runway 09/27 which is 900 metres long and 16 metres wide. The surface is murrum and a wind sock is provided. At the time of the accident the condition of the runway was good.

The strips beyond both runway edges were found cleared to a width of 30 metres after which there were tall trees which were undergrown by tall elephant grass. There is a 60 metres clearing beyond the end of runway 09 and a substantially longer clearing beyond the end of runway 27. There is also a gradual downward slope beyond the end of this runway.

The airstrip is located in the middle of thick forest in the Katavi National Park. There is a river on the northern side of the airstrip which makes it an attractive clearing for animals to rest both before and after setting off to drink water.

The airstrip is mainly used by light aircraft which support game wardens in the Park. A pilot from Red Locust company said that their operations were moved from Sitalike to Mpanda airport because of the potential danger posed by animals on the runway.

Experience has shown that when a speeding vehicle is used to scare a herd of animals out of a runway, most of the beasts escape in one direction while one or two or just a few of these tend to escape in the opposite direction. The same scenario may be caused by an inbound aircraft overflying the runway.

It is always this one or the few animals that subsequently try to race across the runway few minutes later in order to re-join the herd.

On the other hand, when a vehicle is driven at walking speed on the runway, the animals in the herd tend to make a less hasty escape, often in the same direction.

The better approach to this collision problem is to drive slowly in the middle of the runway till it is entirely clear of all the animals. Special attention should be kept on those few beasts which are separated from the herd for as long as the aircraft is using the runway. The three impalas which caused the accident had been displaced in similar circumstances.

One pilot suggested that operations in and out of game park airfields should, as far as feasible, be planned to coincide with times when the animals are known to be away from the airfields. Such times are known. For example there are specific times when they go drink on the river or some water holes.