



# AIB Bulletin

**AIB Bulletin No.** 12                      **Ref.:** CAV/ACC/12/04    **Category** 1.1  
**Aircraft Type & Reg.:** Boeing B767-383                      **Reg.** PH-AHX                      **Serial No.**  
24847

**No. & type of Engines:** Two- Large turbofans  
**Year of Manufacture:** Unknown  
**Date and Time (UTC):** 27 September 2004 at 0605 hours.  
**Location:** Zanzibar International Airport  
**Type of Flight:** Tourist Charter  
**Persons on Board:**                      **Crew** - 9                      **Passengers** -64  
**Injuries:**                      **Crew** - None                      **Passengers** - None  
**Nature of Damage:** Substantial damage on the aircraft left main wheel brakes, inboard flap, left main wheel well door, wing body aft fairing, left inboard flap track shroud, heavy hydraulic fluid leakage. Visible damage caused by foreign object.  
**Commander's Licence:** ATPL  
**Commander's Age:** Not recorded  
**Commander's Experience:** Not recorded

**Information Source:** Telephone call from Zanzibar ATS.

## ALL TIMES UTC

### History of the Flight

The aircraft was operating flight HXL 711 which was a charter flight from Mombasa to Zanzibar. The weather at the time of approach and landing was fine. The aircraft had been cleared to land after a departing A330 Airbus. The aircraft was observed to land normally at 0605hours on runway 18 and was given taxiway 'C' for vacating the runway. It was observed to be taxiing normally, there after the captain reported that the aircraft had experienced a tyre burst and possible damage to the runway. The aircraft proceeded to the apron and stopped north of the taxiway 'C' making it un-available to all large aircraft movement.

After-landing checks established that there were no tire burst. However, braking was lost . There was damage to the left flap track shroud, the left wheel well door, the left inboard flap and the left aft wing body fairing. What was suspected to have been a tire burst was established to be the foreign object damage on the inboard left flap track shroud.

Inspections on the runway noted big chunks of tar lying loose on the surface. These came off the multiple potholes on the runway. TCAA had earlier promulgated an advisory Notice to airmen (NOTAM), cautioning operators on the state of the runway. This Notam was still in force.

The debris liberated from the runway pot holes were of different sizes and weights. The accident pothole was about three meters in diameter.

Prior to the landing of the B767 an A330 Airbus took off from Zanzibar airport with a load of tourists and it is assumed that the departure of this flight dislodged the top surface of the runway with weaker adhesion to the lower layer. The loosened chunks probably caused foreign object damage (FOD) when the landing B767 touched down and applied reverse thrust. The forces generated by the left turbine engine gasses lifted off the loose chunks of the runway surface and they flew off in various directions hitting and causing damage to components of the aircraft.

It is not clear whether an impact assessment was done with the increase of tourist flights using heavy jets into the airport. With Zanzibar becoming a destination of choice, this may have highlighted the physical status and possibly the weaknesses of the runway surface.

The airport management has been carrying out frequent patch ups of the runway surface and this work was not holding well. The surface keeps on breaking down. This is attributable to the poor workmanship and poor supervision of the repairer (general lack of appreciation of the importance of the strength required) and the non-conformity to the required standards. The repair work done after the accident was observed to be of such a low standard that the runway surface at the repair area could be picked off by brushing a hand over it. You could see a plume of dark smoke as an aircraft went over the repair area on application of the reverse thrust. This is a clear sign that the surface repair did not bond properly and was bound to fail.

## **Conclusions**

- The aircraft was properly maintained and had a current maintenance release certificate done on 14 September 04.
- All the aircraft papers including C of A, C of R, Radio Station License, Noise Certificate, AOC, Insurance and lease arrangements were found in order.
- The crew were appropriately qualified for the flight.
- The weather was not a factor to this accident.
- The runway surface did not bond very well to its lower layer which made it easy to dislodge with cyclic loading from aircraft landings
- The frequent repairs did not meet the required strength requirements.

The accident was caused by the flying debris (foreign objects) flying into various aircraft components as it applied its reverse thrust. The probable contributory factors include but are not limited to:

- Weakness of the runway top layer bonding properly to its lower layer
- Poor surface repairs
- Poor supervision of the repair jobs
- Non-adherence to required runway standards
- Weak aircraft operators' observance to operating standards and requirements
- Airport management non-conformity to standards
- Airport management desire to generate incomes with little re-investment in the improvement of the services