



ACCIDENT INVESTIGATION BRANCH

AIB Bulletin

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Category: 1.3

Aircraft Type and Registration: Piper PA 28-140, 5H-MTG
No. & Type of Engines: One Lycoming O-320-E2A.
Year of Manufacture: 1971
Date and Time (UTC): 30 August, 1997 at 0609 hours
Location: Nzasi, Selous Game Reserve (0720 S 038 19E)
Type of Flight: Air Charter
Persons on Board: Crew - 1 Passengers - Nil
Injuries: Crew - Nil Passengers - N/A
Nature of Damage: Damage to engine and left wing.
Commander's Licence: Commercial Pilot's Licence.
Commander's Age: 32
Commander's Flying Experience: 1200 hours (of which 640 were on type)
Information Source: Telephone call from Operator.

The aircraft was on a charter flight to pick a party hunters from Ifakara to Dar es Salaam.

It took off from runway 23 of the Dar es Salaam International airport at 0621 hours. The pilot was the only occupant. He was flying under visual flight rules. The endurance was five hours. The pilot said that the initial phase of the flight was uneventful. He cruised at flight

level 65 (6500 ft above sea level). When he had covered 65 nautical miles on bearing 249 degrees a loud bang was heard and the aircraft was thrown into violent vibration followed by minor vibrations. The engine speed decreased from 2300 RPM TO 1400 RPM. The oil pressure dropped and the temperature rose to the yellow line. After about 40-50 seconds the engine stopped. When the engine was restarted in flight, it failed to accelerate beyond 1400 RPM. It continued to run at this speed for about five minutes after which it stopped again. Effort to crank the engine to restart it again failed.

The pilot subsequently made a MAY DAY call which was picked by a Cessna 404, 5H-TOY, which was flying from Dar es Salaam to Arusha. 5H-TOY relayed the message to the Dar es Salaam Area Control Centre at 0702 hours.

At 0704 hours 5H-MTG executed a forced landing on a grass field at Nzasi near Kidunda, Selous Game Reserve, Morogoro region. Nzasi is 59 nautical miles SW of Dar es Salaam. Shortly before stopping the left wing hit small tree which ruptured the left main fuel tank. There was fuel spillage but no fire broke out.

While at Nzasi the pilot made a number of transmissions on 118.2 MHZ which were not answered. However, at 0730 hours 5H-TZA picked the transmission and was given the GPS Co-ordinates (S 0720 E038 19). The aircraft (5H-TZA) circled overhead the accident aircraft and also reported to the Dar Centre.

At 1100 hours a Police helicopter, 5H-MOU, took off from Dar es Salaam and rescued the pilot.

Examination of the engine showed oil spillage in the cowlings. Further examination showed that there was internal damage and debris in the No. 1 cylinder between the piston and the cylinder head. Both spark plugs were found damaged by repeated hammering of the piston. Similar damage, though to lesser extent, was noticed in the no. 2 cylinder.

The remaining two cylinders (No. 3 and No. 4) were not damaged. When the engine was cranked compression was registered in both cylinders.

The engine, a Lycoming O-320-E2A was manufactured by the AVCO Lycoming Company, USA in 1971. The available records show that it was last overhauled on 29 January, 1981. On 10 June 1992 the engine was installed on 5H-MTG at 0925 hours. By the time of the accident it had logged 1777 hours. The time between overhaul of this engine is 2000 hours.

The circumstances of this accident are being investigated.