

MINISTRY OF COMMUNICATIONS AND TRANSPORT

ACCIDENT INVESTIGATION BRANCH

CIVIL AIRCRAFT ACCIDENT NO. CAV/ACC/9/80

REPORT ON THE ACCIDENT TO PIPER PA31-350 NAVAJO CHIEFTAIN
AIRCRAFT REGISTRATION NUMBER 5H-TAL
WHICH OCCURED ON 5TH DECEMBER, 1980
AT KAMBALA VILLAGE, MVOMERO DIVISION, MOROGORO, TANZANIA

(LAT. 06° 20'S, LONG. 37° 35'E)

Contd...../

APPENDIX I

TO	FROM	(GMT) TIME	COMMUNICATIONS	OBSERVATION
5H-TAL	TC 231	145345	Tango Alpha Lima TC 231?	No reply
5H-TAL	TC 231	145400	Tango Alpha Lima TC 231	No reply
Approach	TC 231	145430	Dar es Salaam TC 231 negative contact Tango Alpha Lima on 119.1 or 119.9	
TC 231	Approach	145440	Roger	
5H-TAL	Approach	145500	5H-TAL Dar how do you read?	No reply followed by unintelligible transmission and interference from unidentified aircraft

From this time up to 1550 no two-way communication was established with 5H-TAL despite repeated blind transmissions by Dar es Salaam Centre/Approach/Tower carrying out Radio Failure Procedures.

APPENDIX I
TRANSCRIPTION

TO	FROM	(GMT) TIME	COMMUNICATIONS	OBSERVATION
Dar Centre	5H-TAL	141100	Dar es Salaam Centre 5H-TAL	
Dar Centre	5H-TAL	141120	Dar es Salaam Centre 5H-TAL.	Dar es Salaam Centre uninteli- gible.
Dar Centre	5H-TAL	141135	Dar es Salaam Centre 5H-TAL from Dodoma airborne time 1355 climbing through FL 90 for 110 ESTIMATING TMA 1435 Dar es Salaam 1515 10 souls on board take-off endurance 0430.	
Dar Centre	5H-TAL	141220	Dar es Salaam 5H-TAL negative reading.	
Dar Centre	5H-TAL	141235	I say again passing FL 90 for 110 TMA 1435 Dar es Salaam 1515. 10 on board take- off endurance 0430.	
Dar Centre	5H-TAL	141305	Confirm Ops. Normal 144500	
		141320	You're unreadable will call again in 10 minutes time.	
Dar Centre	5H-TAL	142545	Dar es Salaam 5H-TAL	No reply.
Dar es Salaam	TC 231	142740	Dar es Salaam TC 231.	This communication on approach 119.1.
TC 231	Approach	142750	Go ahead.	
Approach	TC 231	142800	Roger relaying for 5H-TAL departed Dodoma 1355 FL 110 TMA 1435 Dar es Salaam 1515 10 souls on board 0430 hours endurance.	

Contnd/

TO	FROM	(GMT) TIME	COMMUNICATIONS	OBSERVATION
TC 231	Approach	142820	Roger for Tango Alpha Lima to report next at the Dar es Salaam TMA boundary meanwhile no reported traffic in the DSM FIR at FL 110 go ahead	No reply from TC 231.
5H-TAL	5H-MOE	143125	Tango Alpha Lima from 5H-MOE.	No reply.
5H-TAL	5H-MOE	143135	Tango Alpha Lima from 5H-MOE.	No reply.
5H-MOE	Approach	143150	OK Tango Alpha Lima on 118.9	
Approach (Dar)	5H-TAL	141155	Roger	
Dar Centre	5H-TAL	143430	Dar es Salaam 5H-TAL	Dar es Salaam Centre unintelligible.
Dar Centre	5H-TAL	143445	5H-TAL we are maintaining FL 110.	"
Dar Centre	5H-TAL	143455	I say again we are checking Dar es Salaam TMA FL 110 over.	"
Dar Centre	5H-TAL	143505	Understand maintain 110 and contact approach on 119.1. we are negative contact Sir.	
Dar Centre	5H-TAL	143515	Roger Sir.	No transmission from Dar Centre.
5H-TAL	Approach	144745	5H-TAL	No reply.
5H-TAL	5H-MOE	144815	5H-TAL from MOE how do you read?	No reply. This communication on APP frequency 119.1.
5H-TAL	5H-MOE (119.1)	144830	5H-TAL from MOE how do you read?	No reply.
5H-TAL	TC 231	145320	Tango Alpha Lima TC 231?	No reply.
5H-TAL	TC 231	145335	Tango Alpha Lima TC 231?	No reply.

- (3) Overloading of the aircraft.
- (4) Unserviceable air-borne weather radar in the aircraft.

4. Safety Recommendations

- (1) DCA Surveillance on Airport Operators should be made more frequently.
- (2) Pilots should get meteorological briefing personally before they undertake any flight.
- (3) DCA should improve the serviceability of communication equipment and Navigational Aids.
- (4) Pilots and Aircraft Operators should acquaint themselves on the contents of DCA Aeronautical Information Circulars numbers 5 and 10 of 1979 on thunderstorm penetration procedures.

5. Appendices

- (i) Tape transcript
- (ii) Sketch of crash site

(C.M. Newa)
CHIEF INSPECTOR OF ACCIDENTS

CMN/ejy

The rest of the fuselage and the remaining part of the empennage then floated downwards as the occupants were flung out of the cabin, some with seats and seat rails.

Judging by the nature of the light ground impact damage to the various wreckage parts it was concluded that the midair disintegration took place at approximately 4000ft. above ground level and as supported by medical reports, the 8 occupants including the pilot who was found strapped in his seat, were flung out of the cabin at a lower altitude. Two occupants were found trapped in the main wreckage. The engines, however, owing to their mass, had sufficient inertia to project themselves a longer distance than the rest of the wreckage and settled on location which confirmed the direction of flight as well as the manner and the sequence in which they disintegrated from the aircraft.

3. (a) Conclusions

Findings

- 1) The Pilot was properly licenced
- 2) The aircraft documents were found to be in order
- 3) The air-borne weather radar and the Emergency Locator Beacon were unservicable
- 4) The pilot did not go for the weather briefing prior to undertaking the flight.
- 5) The aircraft was not properly loaded. It was 341 lbs. above the maximum authorised - All up weight Of 7000 lbs.
- 6) The pilot entered into a thunderstorm but failed to follow the right procedures and techniques for thunderstorm penetration.

(b) Cause

The accident was caused by midair disintegration owing to structure overload caused by diving speed in excess of the structural design limits.

Contributory Factors:

- 1) Penetration speed was not selected prior to entering thunderstorms.
- 2) Pilots disorientation in severe thunderstorms.

Dar es Salaam Approach advised the aircraft via TC 231 to proceed to FL 110 and report TMA boundary - the pilot confirmed reaching FL 110. While maintaining this level, it is believed that the aircraft entered a mature CB cell at a high gust penetration speed where it experienced a severe turbulence causing the nose to pitch down.

It is also believed that the pilot misjudged the attitude of the aircraft and corrected for aircraft nose up thus worsening the already existing nosedown attitude - this got the aircraft in an uncontrollable dive. It should be noted that in severe turbulence, the flight instruments, with the exception of the artificial horizon, are unreliable and can easily disorientate the pilot.

During this uncontrollable dive, the aircraft exceeded the maximum structural design speed limits and the engines got into overspeed condition creating disharmonised frequency vibration which compromised the structural integrity of the airplane.

With the aircraft at well above VNE, the number two engine tore away causing damage to the starboard wing subsequent to which the following events took place; the aircraft flipped over to the right in a spiral dive as a piece of the damaged wing hurtled rearwards where it struck the starboard tailplane at the bottom cutting a hole and scoring the skin as it continued in its path rearwards and outwards damaging the outer half of the starboard elevator and trim tab subsequently breaking off the starboard tailplane in the ensuing flutter. The number one engine in resisting the change in its motion by the flipping over of the aircraft, tore away from the aircraft and broke off the port wing in a downwards and forward direction flinging the port wing away from the remaining part of the airframe.

During this process, the fuselage experienced extreme torsional loads which cracked the co-pilot's windscreen on the peripheries leading to complete cracking of the entire windscreen. As the windscreen cracked, high speed air was rammed into the cabin ripping off the top deck complete with the from three pairs of cabin windows, pilot and co-pilot's side windows, both windscreen frames and the glareshield panel.

It was determined that at this same instant as the right hand wing broke up as a result of the damage aggravated by the separation of number 2 engine from the starboard wing, a piece of the damaged wing was flung rearwards (with the aircraft now in a clockwise spiral dive) striking the starboard tailplane at the bottom, where it punctured a hole approximately 1½ inches in diameter and deeply scored the skin as it continued rearwards and outwards, eventually damaging the outer half of the elevator and trimtab.

The sudden flipping over of the aircraft to the right at the commencement of the spiral dive caused the number 1 engine to separate from the port wing jerking the wing downwards and forwards as it tore away in an overspeed condition.

During the detailed study of each part of the wreckage, it was confirmed that all the parts had broken up owing to structural overload and that there had been no evidence of structural failure of any part of the aircraft prior to the accident. Judging by the results of the examination of the wreckage, the starboard wing was damaged by structural overload, the port wing was broken off the fuselage securing points by sheer loads and the starboard tailplane came adrift owing to excessive flutter induced by the damaged half of starboard elevator and trimmer. The high stress loads imposed on the fuselage by the severe twisting caused the co-pilot's windscreen to crack on the peripheries eventually cracking the entire windscreen admitting high speed gusts of air into the cabin - this ripped off the top deck as the aircraft continued the spiral dive.

The flaps were found in the retracted position. The landing gear and the landing gear switch were in the up and locked position.

All engine and flight instruments were damaged by impact when the main wreckage struck the ground.

2. ANALYSIS

As mentioned in the history of the flight, at 1411.35 the pilot advised Dar es Salaam Centre that he was climbing through FL 90 to FL 110.

Early the next day on 6th December, 1980 four aircraft including two Police helicopters left Dar es Salaam Airport for the Aerial Search. The search was interrupted by poor weather that prevailed over the Search Area.

At 0736 Police Headquarters on advise from Morogoro Police informed the Rescue Coordination Centre that the aircraft crash site had been located. It transpired that on the evening of 5th December, 1980, at around 1445 villagers from Kambala Village in Morogoro heard the aircraft high pitched sounds which stopped, then followed a series "explosive" sounds. At that time it was raining heavily and no one could get outside to check what had happened. Later that day when rain subsided, on coming out of their houses, they found that an aircraft had crashed near their homes.

The matter was then reported to the village Chairman who went to the crash site immediately but could not see any survivors. Because of heavy rains, the area was flooded with water and communication out of the village was difficult. News of the accident was reported to a nearby prison early the next morning who in turn informed Morogoro Police. Morogoro Police immediately despatched the evacuation team to the accident site.

At 0900 Police helicopters also reported to RCC of siting the wreckage and confirmed that there was no survivors.

The rescue team from Morogoro arrived at the crash site later on foot because cars could not reach the accident area as a result of mud and floods. All the ten bodies were recovered, 8 of them had been thrown out of the aircraft, 6 out of 8 were found strapped in their seats. The other two were found trapped under the main wreckage.

This accident was not survivable.

1.16 Examination of the Wreckage

Detailed examination of the wreckage confirmed that the number 2 engine tore away from the starboard wing complete with the bulkhead subsequent to which the outer third of the starboard wing broke away upwards in confirmity with the manner in which the number 2 engine tore away from the wing as the aircraft experienced a severe downdraught.

1.10 Aerodrome Information

Not relevant to this accident.

1.11 Flight Recorders

Not required by Regulations. None fitted.

1.12 Wreckage and Impact Information

The wreckage was scattered over an area measuring 4km. long (East/West) and 800 metres wide (North/South). The main wreckage came to rest approximately 3 km. from the starboard Tailplane and 800 metres from the engines - see diagram. The position of each piece of the wreckage was plotted in the direction of flight starting with the starboard tailplane moving towards the engines past the main wreckage which had floated down after the engines and the wings broke off the fuselage. It was noticed that with the exception of the bottom ~~front~~ fuselage, rear fuselage, the port tailplane, the elevator, the fin and the rudder (less rudder tip), the remaining part of the aircraft had disintegrated in the air. The rear fuselage was buckled on impact.

1.13 Medical and Pathological Information

Post-mortem examination in all cases indicate severe crushed skulls, severe lacerations in thoracic and abdominal regions.

Fire

1.14 There was no fire.

1.15 Survival Aspects

Communication Search for five hotel tango alpha lima commenced soon after the aircraft failed to arrive in Dar es Salaam. Checks at Iringa which was the alternative and at other Airports adjacent to the route, revealed that the aircraft had not landed there. Police were asked to alert their signal posts to check if the aircraft had landed at other airstrips.

The general public was also alerted through the National Radio and asked to report any sighting of this aircraft. Unfortunately, owing to darkness aerial search could not be carried out immediately.

It also suggests that there were some Cbs with very strong surface wind gusts. These wind gusts must have been associated to the strong down and updrafts in the Cbs.

1.8 Aids to Navigation

The aircraft was equipped with a VOR and an ADF. Both facilities were destroyed in the accident. The aircraft was not equipped with a DME.

The ground aids relevant to this accident are the Dodoma NDB and Dar es Salaam VOR. Although Dodoma NDB "DO" was unserviceable the VOR/DME ("DV") at Dar es Salaam was serviceable at the time and with its range of 200N.M, it is considered that the pilot had tuned on-to DV. This is the normal navigational procedure for aircraft flying from this direction to Dar es Salaam to avoid the designated **Prohibited Area P6**.

1.9 Communications

The aircraft had no communication problems with Dodoma Tower/Approach on 118.1 and was transferred to Dar es Salaam Centre. The transcript of the tape recordings made after the accident reveals that 5H-TAL made several attempts to contact and relay its flight information to Dar es Salaam Centre on 118.9 but the latter could not be intelligible. 5H-TAL contacted another aircraft - a Fokker Friendship on 118.9 MHz to relay its information.

The aircraft could not contact Dar es Salaam Approach on 119.1 either, as can be deduced from his last transmission at 1435.05 when the pilot transmitted the following to Dar es Salaam Centre.

"Understand maintain (FL)110 and contact approach on 119.1 we are negative contact Sir."

Other aircraft flying in the vicinity of Dar es Salaam TMA could be clearly heard on 119.1 and Approach Control was also clear. No transmission was heard from 5H-TAL on 119.1.

The transcript of the tape recordings is shown at appendix (I).

The forecast which was prepared at 0300 on 5th December, 1980 and valid for times of departure 0430-0654 and arrival 0955-1630 included.

Significant Weather

The route forecast gave probability of isolated showers throughout the route on both trips.

Clouds

(a) High and Medium Clouds

3-5 Octas of AC with bases at 9,000-12,000ft. The tops would extend as high as possible.

(b) Lowest Layer

Localised isolated Cbs with bases between 2,000-5000 ft. The tops would extend as far as possible, 4-6 Octas CU with bases between 1,800-5,000ft. and tops at 9,000-13,000ft.

Surface Visibility

This was expected to be mainly over 10Km. for both Dar es Salaam and Dodoma.

Altitude of 0°C Isotherm

This was expected to be at 15,000 ft.

Upper Winds

	<u>Dar es Salaam</u>	<u>Dodoma</u>
at 5000ft.	020/15	xxxxx
7000ft.	060/10	080/10
10000ft.	VRB/10	VRB/10
14000ft.	100/10	080/10

However, there was a remark that these winds were of low confidence due to lack of sufficient data.

Actual Weather

The actual weather description given by villagers near the crash site and observation as reported from the neighbouring Meteorological Stations indicated that the prevailing weather situation in the neighbourhood of the accident site at the time of the accident was very bad. This weather was associated with heavy showers and very frequent thunderstorms.

Therefore outboard tanks had 456 lbs. the balance left on inboard was 444 lbs. The luggage was 30 lbs. stowed in forward baggage compartment. Since the actual weight of the passengers were not taken in compiling the load sheet standard weight of 165 lbs. for a male passenger and 143 per female passenger has been used. Also the order of sitting apart from the pilot could not be ascertained. Therefore with the above facts the load sheet for the leg Dodoma to Dar es Salaam has been prepared as under:-

<u>ITEM</u>	<u>Wt(lbs)</u>	<u>ARM(inches)</u>	<u>MOMENT</u>
Basic Airplane	4805	125.0	6000625.0
Pilot Seat	165	95.0	15675.0
Co-pilots Seat	165	95.0	15675.0
Seat No. 3	165	132.0	21780.0
Seat No. 4	143	132.0	18876.0
Seat No. 5	165	163.5	26977.5
Seat No. 6	165	163.5	26977.5
Seat No. 7	165	195.0	32175.0
Seat No. 8	165	195.0	32175.0
Seat No. 9	165	229.0	37785.0
Seat No. 10	143	242.0	34606.0
Forward Baggage	30	19.0	570.0
Rear Baggage	-	-	-
Inboard fuel	444	126.8	56299.2
Outboard fuel	456	148.0	67488.0
Total Weight	7341	Total Moment	987684.2
CofG Location at take off			134.5435
Maximum Authorised Weight			7000 lbs.

From the above it will be noted that at take-off the aircraft was in excess of maximum authorised weight by 341 lbs. and at the time of the accident was in excess of 135 lbs.

1.7 Meteorological Information

Before 5H-TAL departed Dodoma an Assistant Ops Clerk of Tanzania Aviation Limited (the owner and operator of TAL)

collected the route weather forecast. Since the pilot did not collect the forecast personally, he was not briefed on the weather. It was also confirmed by Dodoma Meteorological Office that the pilot did not take any enquiries on the weather before departing for Dar es Salaam.

On completion of the repairs, problems arose regarding CofA which had apparently been issued by the East African DCA in Nairobi and got misplaced during the Community break up and has since become untraceable. It was then decided to treat the case as an issue rather than a renewal of CofA.

The aircraft was allowed to retain its registration and after final inspection of the aircraft, CofA number 164 was issued on 27th May, 1978. This CofA was renewed on 13th September, 1979 and expired on 12th September, 1980. The aircraft then underwent a Check III at CMC Nairobi during which time all Piper Service Bulletins were complied with. On completion of all the work tasks the CofA was renewed for a further period of one year with effect from 24th October, 1980. At the time of renewal it was recorded that the ELT and air-borne weather radar were unserviceable.

Prior to the Check III in Nairobi the aircraft had satisfactorily been maintained by Tanzania Aviation Limited to Approved Maintenance Schedule Ref. MS/TAL/PA23/31/Iss.I.

1.6.1 Loading and CofG Disposition

There was no load sheet prepared by the pilot for the leg Dodoma to Dar es Salaam. Working back from the Load Sheet prepared at Dar es Salaam for the leg Dar es Salaam to Dodoma the fuel position is as follows:-

Fuel uplift from Dar es Salaam to Dodoma:

Inboard tanks (full)	636 lbs
Outboard tanks	150 lbs
Total fuel	<u>786 lbs</u>
Burn off (Dar es Salaam-Dodoma)	324 lbs
Fuel on landing at Dodoma	462 lbs
Fuel uplift at Dodoma (277 litres)	<u>438 lbs</u>
Total fuel on take off Dodoma	900 lbs

It has been reported from Shell people in Dodoma who refuelled the aircraft that they filled only outboard fuel tanks as per instructions of the pilot.

1.3 Damage to aircraft

The aircraft was completely destroyed.

1.4 Other damages

Nil.

1.5 Personnel Information

The Pilot was born on 23rd May, 1954 at Moshi, Tanzania. He did his pilot training at the East African Civil Flying School, Soroti, Uganda where he qualified for a Commercial Pilot's Licence No. X-204 with Instrument Rating and Radio Telephony on 25th May, 1978. He also completed ALTP Ground School.

The two licences were converted to Tanzanian Licence numbers HP-111 and H-194 respectively on 28th November, 1979. They have been kept valid ever since.

Ratings

The pilot was rated for the following aircraft types in group one: Cessnas 172 and 310, Piper PA23 and 31. The pilot was rated for PA31 on 25th November, 1979. His instrument rating was current and the last test was done on 10th September, 1980 to last for thirteen months.

Experience

His total flying experience up to the time of the accident is 1693:30 hours, of which 326:15 hours are on the type.

1.6 Aircraft Information

The aircraft a Piper PA31-350 Navajo Chieftain Serial number 31-7652016 powered by two Lycoming T10-540-J2ED engines was manufactured by Piper Aircraft Corporation in 1976. This aircraft arrived in East Africa early in 1977 in possession of Export CoFA number E127422 and a USA Registration N59735; it was later registered by the then East African DCA as 5H-TAL on 25th May, 1977 in the name of Tanzania Aviation Limited, P.O. Box 25 Dar es Salaam, Tanzania.

On 15th August, 1977 the aircraft ~~sustained~~ sustained substantial damage in a wheels up landing at Mtwara Airport upon which it was dismantled and transported to CSE Kidlington for major structural repairs.

1.2 INJURIES TO PERSONS

INJURIES	CREW	PAX	OTHERS
Fatal	1	9	NIL
Seriously injured	NIL	NIL	NIL
Minor/ None	NIL	NIL	NIL

the Dodoma-Dar es Salaam tie line 5H-TAL was then advised to change to 118.9 MHz and request for FL 110 from Dar es Salaam Centre.

At 1411.35, 17 minutes after departing Dodoma, the pilot transmitted the following information to Dar es Salaam Area Control Centre. ".....climbing through FL 90 for 110 estimating TMA 1435 Dar es Salaam 1515"

At 1428 a Fokker Friendship flight number TC 231 from Tabora to Dar es Salaam relayed the following message to Dar es Salaam Approach Control on 119.1 MHz.

"Roger relaying for five hotel tango alpha lima, departed Dodoma 1355 FL 110 TMA 1435 Dar es Salaam 1515, 10 souls on board 0430 hours endurance."

This message was received by Approach which took approximate action to accommodate the flight. At this time, 5H-TAL was flying outside the controlled airspace.

It is believed that due to communication problems with Dar es Salaam Centre, the pilot had to change to unmanned frequency 118.2 MHz to relay its information through another aircraft flying in that area at the time.

At 1434:55 5H-TAL transmitted on 118.9 that he was checking Dar es Salaam TMA FL 110. 10 seconds later 5H-TAL confirmed this statement with Dar es Salaam Centre. From then there was no other communication from 5H-TAL despite several attempts by Dar es Salaam Centre/Approach/Tower and other aircraft flying in the vicinity to establish contact with the aircraft.

The aircraft wreckage was found in a flat marshy plain near Kambala village in Morogoro (Lat. 06° 20'S, Long. 37° 35'E).

The elevation of the crash site is 1000 ft.

All ten occupants were killed and there was no fire.

At 1445 it is believed the aircraft entered into mature cumulo-nimbus clouds at a high gust penetration speed where the aircraft experienced severe turbulence causing the nose to pitch down. This got the aircraft into an uncontrollable dive exceeding structural design limits. It was also established that the aircraft was overloaded.

The aircraft disintegrated in the air and was completely destroyed and the wreckage scattered over a large area measuring approximately 4Km x 0.8Km. All the ten persons died from multiple crushing injuries. The weather at the site of the crash was reported as heavy showers associated with thunderstorms and very strong surface wind gusts.

The Panel investigating this accident had determined that the probable cause of the accident was midair disintegration owing to structural overload caused by diving speed in excess of the structural design limits. It also determined the following as being contributory factors:-

- (1) Pilots disorientation in severe thunderstorms
- (2) Overloading of aircraft
- (3) Unserviceability of air-borne weather radar in the aircraft

FACTUAL INFORMATION

1. HISTORY OF FLIGHT

On December 5th 1980 a Piper PA31-350 5H-TAL owned by Tanzania Aviation Limited departed Dar es Salaam International Airport at 0800 hours on a Charter Flight to Dodoma. The pilot had filed a VFR TRU PLN to Dodoma/Dar es Salaam for that day.

The aircraft landed Dodoma at 0926 uneventfully. Between 0940 and 0945 the aircraft was refuelled under the supervision of the pilot. At 1354 5H-TAL departed Dodoma with 10 persons on board and reported endurance of 4 hours 30 mins. estimating Dar es Salaam at 1515. At the time of departure the weather observation at Dodoma was reported as cloudy with surface wind 100/05Kts, visibility 30Km, 2/8 CB 2500 ft. $\frac{3}{8}$ cu. 2800 ft. and 4/8/AC/AS 9000ft. QNH 1010 mbs. On checking the control zone boundry at 1410, the pilot requested to climb to FL 110 i.e to change from VFR to IFR. Since Dar es Salaam Centre could not be raised on

AIRCRAFT ACCIDENT REPORT NO. CAV/ACC/9/80

AIRCRAFT : Piper PA31-350 Navajo-Chieftain
ENGINES : Two, Lycoming T10-540-J2BB
REGISTERED OWNER : Tanzania Aviation Limited,
P.O. Box 25
DAR ES SALAAM
OPERATOR : Tanzania Aviation Limited
CREW : One Pilot - Killed
PASSENGERS : Nine (9) - Killed
PLACE OF ACCIDENT : Kambala Village, Mvomero Division
Morogoro, Tanzania.
(Lat. 06° 20'S, Long. 37° 35'E)
DATE AND TIME : 5th December, 1980 approximately
1445.

ALL TIMES IN THIS REPORT ARE GMT

INTRODUCTION

Accident Investigation Branch was notified of the occurrence on the following day and commenced investigation immediately the same day headed by Mr. O. Waryaro, DCA, as Chairman, who later on was replaced by Mr. C. Newa, Chief Inspector of Accidents, while Mr. O. Waryaro became the Chief Technical Investigator. Other members of the Investigation Panel were:- Mr. S.A. Sheikh and G. Mwela from ~~TANZANIA~~, B. Nyenzi from Meteorological Department, V. Haji, J.N. Mwakaliku, M. Alloo, W.O. Malisa and A.L. Mohamed from DCA.

SYNOPSIS

At 1354 hours on 5th December, 1980 5H-TAL a Piper PA31-350 owned by Tanzania Aviation Limited departed Dodoma on a return VFR flight to Dar es Salaam with 10 persons on board and 4 hours 30 minutes endurance. ETA Dar es Salaam was 1515. Due to bad weather enroute the pilot decided to change from VFR to IFR flight plan and requested to climb to FL 110. This information was relayed through a scheduled flight TC 231. 5H-TAL checked TMA inbound at about 1435 at FL 110.