



National Transportation Safety Board Aviation Accident Final Report

Location:	HORSESHOE BAY, TX	Accident Number:	FTW87FA061
Date & Time:	02/07/1987, 0840 CST	Registration:	N81SM
Aircraft:	PIPER PA-42	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Serious
Flight Conducted Under:	Part 91: General Aviation - Business		

Analysis

THE PILOT MADE A FAIRLY LONG TAXI FROM THE RAMP TO THE END OF THE RUNWAY AND THEN STARTED HIS TAKEOFF ROLL WITH THE PARKING BRAKE STILL PARTIALLY SET. THE BRAKES BECAME VERY HOT AND THE COMPONENT PARTS EXPANDED. AFTER ROLLING ALMOST 3,000 FEET THE BRAKES TIGHTENED UP TO THE EXTENT THAT BOTH MAIN GEAR TIRES STARTED LEAVING BLACK SKID MARKS WHICH CONTINUED UNTIL THE AIRCRAFT RAN OFF THE END OF THE RUNWAY WITHOUT OBTAINING FLYING SPEED, A DISTANCE OF 3,168 FEET. IT WAS NOTED, THROUGH A DESIGN FEATURE OF THE AIRCRAFT, THAT THE PARKING BRAKE HANDLE COULD BE PLACED IN THE RELEASED POSITION WITHOUT THE BRAKE BEING RELEASED. HOWEVER, THIS WOULD GIVE THE APPEARANCE THAT IT HAD BEEN RELEASED. THE MAIN GEAR TIRES WERE WORN ALMOST SLICK DURING THIS ATTEMPTED TAKEOFF. BOTH MAIN GEAR BRAKES HAD BEEN OVERHEATED DURING THIS TIME TO THE EXTENT THAT THEY WERE DESTROYED. THE ACFT WAS DESTROYED BY COLLISION WITH TREES, ROCKS AND A FIRE HYDRANT AT THE BOTTOM OF A HILL OFF THE END OF THE RWY.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER

Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. (C) AIRSPEED(VLOF) - NOT OBTAINED - PILOT IN COMMAND
2. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
3. (F) PROCEDURES/DIRECTIVES - NOT FOLLOWED - PILOT IN COMMAND
4. (C) EMERGENCY PROCEDURE - INADEQUATE - PILOT IN COMMAND

Occurrence #2: OVERRUN

Phase of Operation: TAKEOFF

Findings

5. (C) ABORTED TAKEOFF - DELAYED - PILOT IN COMMAND
6. (C) POWERPLANT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: TAKEOFF

Findings

7. (F) TERRAIN CONDITION - DOWNHILL
8. (F) OBJECT - TREE(S)
9. (F) TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

Pilot Information

Certificate:	Commercial	Age:	40, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	01/10/1986
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	3670 hours (Total, all aircraft), 12 hours (Total, this make and model), 3520 hours (Pilot In Command, all aircraft), 43 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N81SM
Model/Series:	PA-42 PA-42	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	42-8001007
Landing Gear Type:	Retractable - Tricycle	Seats:	9
Date/Type of Last Inspection:	11/22/1985, AAIP	Certified Max Gross Wt.:	11200 lbs
Time Since Last Inspection:	33 Hours	Engines:	2 Turbo Prop
Airframe Total Time:	2002 Hours	Engine Manufacturer:	P&W
ELT:	Installed, not activated	Engine Model/Series:	PT6A-41
Registered Owner:	1ST TEXAS TURBINE AIRCRAFT	Rated Power:	720 hp
Operator:	1ST TEXAS TURBINE AIRCRAFT	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	AUS, 632 ft msl	Distance from Accident Site:	35 Nautical Miles
Observation Time:	0852 CST	Direction from Accident Site:	105°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	15 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	11 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	310°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	8° C / 2° C
Precipitation and Obscuration:			
Departure Point:	HORSESHOE BAY, TX (4R2)	Type of Flight Plan Filed:	None
Destination:	AUSTIN, TX (AUS)	Type of Clearance:	None
Departure Time:	0839 CST	Type of Airspace:	Class G

Airport Information

Airport:	HORSESHOE BAY (4R2)	Runway Surface Type:	
Airport Elevation:	0 ft	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	J O JOHNSON	Report Date:	03/21/1988
Additional Participating Persons:	NORBERTO R DESILVA; SAN ANTONIO, TX		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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