



# National Transportation Safety Board Aviation Accident Final Report

---

<b>Location:</b>	PAINT ROCK, TX	<b>Accident Number:</b>	FTW96FA027
<b>Date &amp; Time:</b>	10/26/1995, 0950 CDT	<b>Registration:</b>	N9NP
<b>Aircraft:</b>	Beech 65-B80	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	1 Fatal
<b>Flight Conducted Under:</b>	Part 135: Air Taxi & Commuter - Non-scheduled		

---

## Analysis

Witnesses observed the airplane contact the water while buzzing a lake, 'emerge from a cloud of water,' and enter a climb trailing white vapor. As the airplane approached the lake shore, the right propeller 'quit turning,' then the airplane entered a steep right bank and impacted the ground. The right propeller lever was found in the feather position. Propeller teardowns revealed signatures indicating the right propeller was feathered and the left propeller was operating in the low pitch range at impact. Disassembly of the engines revealed no evidence of any pre-impact mechanical anomalies, and, in the opinion of the manufacturer, 'both engines appeared capable of producing power prior to impact.' Toxicological tests showed 178.000 mg/dl (0.178%) ethanol in vitreous fluid, 90.000 mg/dl (0.09%) ethanol in blood, 114.000 mg/dl (0.114%) ethanol in brain fluid, 3.000 mg/dl acetaldehyde in brain fluid, 22.000 mg/dl acetaldehyde in blood, and 4.000 mg/dl 2-propanol in brain fluid. The levels of ethanol found indicate ingestion of alcohol, and the levels of acetaldehyde and 2-propanol (metabolites of ethanol) detected support ingestion of alcohol.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's impairment of judgment and performance due to alcohol which resulted in his improper decision to shutdown an engine, and his failure to maintain adequate airspeed for single-engine flight.

## Findings

---

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: MANEUVERING

### Findings

1. BUZZING - PERFORMED - PILOT IN COMMAND
  2. (C) IMPAIRMENT(ALCOHOL) - PILOT IN COMMAND
  3. CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
  4. TERRAIN CONDITION - WATER
- 

Occurrence #2: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL  
Phase of Operation: MANEUVERING

### Findings

5. 1 ENGINE
  6. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
  7. ENGINE SHUTDOWN - INTENTIONAL - PILOT IN COMMAND
- 

Occurrence #3: LOSS OF CONTROL - IN FLIGHT  
Phase of Operation: MANEUVERING

### Findings

8. (C) AIRSPEED(VMC) - NOT MAINTAINED - PILOT IN COMMAND
- 

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: DESCENT - UNCONTROLLED

## Factual Information

### HISTORY OF FLIGHT

On October 26, 1995, approximately 0950 central daylight time, a Beech 65-B80, N9NP, collided with terrain while maneuvering near the O.H. Ivie Reservoir, located 20 sm east of Paint Rock, Texas. The airplane was destroyed and the commercial pilot received fatal injuries. The airplane was being operated under Title 14 CFR Part 135 by Talon Air Service per contract with Airborne Express when the accident occurred. Visual meteorological conditions prevailed for the cargo flight which departed Waco, Texas, approximately 0900 en route to San Angelo, Texas. No flight plan was filed.

A witness who was fishing from a boat about 1.5 sm west of the reservoir dam initially observed the airplane heading southwest in a "slow descent" from an altitude he estimated as 500 feet AGL down to 150 feet AGL. The witness looked away from the airplane, and when he looked back, "saw the airplane emerge from a cloud of water" and "heard a loud clap noise." He observed "vapor trailing [from the airplane] that appeared to be white in color" and reported "the aircraft was trying to climb, but appeared to be losing forward speed." He further reported seeing "the aircraft start a steep right turn, nose high" and then observed a "cloud of dust rise above the horizon." The statements of two additional witnesses who made similar observations are attached to this report.

Another witness who was working on the dam spillway observed the airplane "flying parallel to the dam" at an altitude of "200 to 300 feet" AGL. He reported "the right propeller was turning when I first saw the plane, but it was not turning as fast as the left prop, and it only flew a short distance before the right propeller quit turning." He further reported "the right wing dropped and then there was a cloud of dust." Three other witnesses located near the dam reported that the right propeller was "not turning" when they observed the airplane enter a "steep" right bank and impact the ground.

### PERSONNEL INFORMATION

Review of the operator's records by the investigator-in-charge revealed that the pilot was hired by the operator on March 6, 1994, and had been flying as a captain of Beech 65-B80 airplanes for the operator since that time. As of his date of hire, the pilot had accumulated a total flight time of 1,909 hours. The pilot's duty time records indicated he flew a total of 593 hours in the Beech 65-B80 between March 1994 and August 1995.

### AIRCRAFT INFORMATION

A review of the maintenance records showed that the airplane received an annual inspection on September 17, 1995, at a total airframe time of 8,105 hours. The records identified the left and right engines as Lycoming model IGSO-540-A1D, serial numbers RL-1209-50 and RL-3137-50 respectively, and indicated that as of September 17, 1995, the engines had accumulated 209 and 978 hours respectively since major overhaul.

During the on scene examination of the engines, it was noted that the left engine data plate, located on the reduction gear assembly, identified the engine serial number as L-1527-50. No data plate was found on the right engine. The operator reported that company personnel had replaced the left reduction gear assembly following a recent failure with a serviceable unit from engine serial number L-1527-50. No record of this replacement was found in the engine

maintenance records.

Weighing of cargo and baggage as it was removed from the wreckage yielded values of 1108 and 89 pounds respectively. Estimates indicated that the airplane was within the prescribed limits for weight and center of gravity, both at takeoff and at the time of the accident.

#### WRECKAGE AND IMPACT INFORMATION

The wreckage was located approximately latitude 31 degrees 29.10 minutes north and longitude 99 degrees 41.91 minutes west. Examination of the accident site revealed a linear wreckage path, including ground scars, extending for a distance of 140 feet on a measured magnetic heading of 306 degrees. The first evidence of ground impact was a ground scar containing fragments of a green navigation light lens. Windshield fragments were found in a ground scar at the 60 foot mark and the outboard section of the right wing was located at the 80 foot mark. The main wreckage, consisting of the fuselage with the left wing and empennage attached, came to rest upright on a measured magnetic heading of 168 degrees at the 120 foot mark. The inboard section of the right wing was lying on the ground adjacent to the main wreckage.

The engines were torn away from the wings but remained attached to the main wreckage by control cables. Both propeller reduction gear assemblies with the propellers attached were separated from the engines. The forward portion of the cabin section top was torn off and the left propeller and reduction gear assembly was found inside the cockpit area. Two blades of the propeller were in the feather position and the third blade was rotated about 90 degrees in the hub and bent forward at the midpoint. All three of the blades displayed chordwise scratches. The right propeller and reduction gear assembly was found at the 90 foot mark. One blade was in the feather position, one blade was in a low pitch position and bent back at the midpoint, and the third blade was rotated about 135 degrees in the hub. Minimal rotational scoring was noted on the blades.

Control continuity was established from the control surfaces to the cockpit for the elevator, rudder, and the left aileron. Control continuity for the right aileron could not be established due to impact damage. Examination of the cockpit revealed that the right throttle lever was in the closed position, the right propeller lever was in the feather position, the right mixture lever was in the full rich position, and the right engine fuel selector was in the off position. The left throttle lever was in the full open position, the left propeller lever was in the low pitch position, the left mixture lever was in the idle cutoff position, and the left engine fuel selector was in the on position.

#### MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy of the pilot was performed by Carolyn H. Revercomb, M.D., Medical Examiner, at Bexar Country Forensic Science Center in San Antonio, Texas. Toxicological testing was positive for alcohol. Tests showed 178.000 mg/dl (0.178%) ethanol in vitreous fluid, 90.000 mg/dl (0.09%) ethanol in blood, 114.000 mg/dl (0.114%) ethanol in brain fluid, 3.000 mg/dl acetaldehyde in brain fluid, 22.000 mg/dl acetaldehyde in blood, and 4.000 mg/dl 2-propanol in brain fluid. According to Dr. Soper of the FAA's Civil Aeromedical Institute, the levels of ethanol found indicate ingestion of alcohol and "would be considered high enough to cause impairment of judgment in the pilot." Acetaldehyde and 2-propanol are metabolites of ethanol and the levels detected "support ingestion of alcohol."

#### TESTS AND RESEARCH

Both propellers were shipped to the manufacturer for a teardown and inspection which took place on December 7, 1995. During examination of the left propeller, three different markings were found and converted to blade angle: (1) piston side wall markings corresponding to blade angles between 20 and 52 degrees; (2) a bent guide rod position corresponding to a blade angle between 18 and 30 degrees; and (3) butt end impressions of one blade corresponding to a blade angle of 19 degrees. During examination of the right propeller, markings were found indicating blade angles "at or near the feather position." According to the manufacturer, the low pitch stop setting of the propeller is 18.25 degrees and the feather position is 87.0 degrees. See the enclosed manufacturer's report for further details.

Both engines were shipped to the manufacturer for a teardown and inspection which took place on January 3-5, 1996. Examination of the left engine revealed that the supercharger impeller had significant foreign object damage on all blades. Numerous impact marks were noted in the diffuser housing and the supercharger outlet tube, and debris, some of which appeared to be wood, was recovered from the outlet tube. During inspection of the reduction gear assembly, it was noted that a piece of a planet gear tooth was wedged between two of the ring gear teeth. Ring gear teeth were damaged in six locations and all the planet gears had tooth damage. All of the tooth damage appeared to be the result of impact.

Examination of the right engine revealed that the supercharger impeller had light foreign object damage on the leading edges of the blades. The supercharger inlet housing was free of debris. No broken teeth were noted on the ring gear or the planet gears of the reduction gear assembly. In the opinion of the manufacturer, both engines "appeared capable of producing power prior to impact." See the enclosed manufacturer's report and FAA inspector's report for further details.

**ADDITIONAL INFORMATION**

The wreckage was released to a representative of the owner.

Additional Persons (continued from page 5)

Roger W. Stallkamp Hartzell Propeller Piqua, Ohio 45356

**Pilot Information**

<b>Certificate:</b>	Commercial	<b>Age:</b>	38, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	12/07/1994
<b>Occupational Pilot:</b>	<b>Last Flight Review or Equivalent:</b>		
<b>Flight Time:</b>	2502 hours (Total, all aircraft), 593 hours (Total, this make and model), 138 hours (Last 90 days, all aircraft), 46 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N9NP
Model/Series:	65-B80 65-B80	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	LD-428
Landing Gear Type:	Retractable - Tricycle	Seats:	1
Date/Type of Last Inspection:	09/17/1995, Annual	Certified Max Gross Wt.:	8800 lbs
Time Since Last Inspection:	22 Hours	Engines:	2 Reciprocating
Airframe Total Time:	8127 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed	Engine Model/Series:	IGSO-540-A1D
Registered Owner:	JAMES NYERGES	Rated Power:	380 hp
Operator:	DANA LISA NYERGES	Operating Certificate(s) Held:	On-demand Air Taxi (135)
Operator Does Business As:	TALON AIR SERVICE	Operator Designator Code:	JWHA

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	15 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	Calm /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	21 °C
Precipitation and Obscuration:			
Departure Point:	WACO, TX (CNW)	Type of Flight Plan Filed:	None
Destination:	SAN ANGELO, TX (SJT)	Type of Clearance:	None
Departure Time:	0841 CST	Type of Airspace:	Class G

## Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

## Wreckage and Impact Information

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

## Administrative Information

Investigator In Charge (IIC):	GEORGIA R SNYDER	Report Date:	02/04/1997
Additional Participating Persons:	RAMON BARRERA; SAN ANTONIO, TX GERALD R JAMES; WILLIAMSPORT, PA JAMES E STERMER; WICHITA, KS JAMES NYERGES; MIDLAND, TX		
Publish Date:			
Investigation Docket:	NTSB accident and incident docket 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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).