



National Transportation Safety Board Aviation Accident Final Report

Location:	SANTA FE, NM	Accident Number:	FTW93FA165
Date & Time:	05/25/1993, 2114 MDT	Registration:	N241DT
Aircraft:	FAIRCHILD SA-226T	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	4 Fatal
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

THE PURPOSE OF THE TRAINING FLIGHT WAS TO CONDUCT PART 135 CHECKRIDES FOR A PILOT-IN-COMMAND AND A SECOND-IN-COMMAND UPON COMPLETION OF THE CREW'S TRAINING. THE CHECKRIDE WAS BEING OBSERVED BY A FAA INSPECTOR SEATED IN THE CABIN. AFTER COMPLETING AN ILS APPROACH TO RWY 2, THE FLIGHT WAS CLEARED TO CIRCLE TO LAND ON RWY 15. THE AIRPLANE WAS OBSERVED OVERFLYING RWY 15 AND LINED UP FOR RWY 20. THE TOWER ADVISED THE PILOT THAT HE WAS LINED UP FOR RWY 20, AND WAS GIVEN THE OPTION TO LAND ON EITHER RWY 15 OR RWY 20. THE PILOT OPTED FOR RWY 15 AND WAS CLEARED TO A RIGHT DOWNWIND. THE AIRPLANE IMPACTED A HILL AT THE 6,870-FT LEVEL NEAR THE CREST, APPROX 5 MI WEST OF THE AIRPORT. THE PUBLISHED CIRCLING MDA FOR THE ILS RWY 2 APCH IS 6,860 FT. THE AIRPORT IS LOCATED ABOUT 9 MI FROM THE CITY, AND SEVERAL LOCAL PILOTS REPORTED A TOTAL LACK OF VISUAL REFERENCE IN THAT SEGMENT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S POORLY PLANNED CIRCLING APPROACH, AND HIS FAILURE TO MAINTAIN AN ADEQUATE ALTITUDE. FACTORS WHICH CONTRIBUTED TO THE ACCIDENT WERE: THE DARK NIGHT AND A LACK OF VISUAL REFERENCE.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: APPROACH - VFR PATTERN - BASE TURN

Findings

1. (F) TERRAIN CONDITION - MOUNTAINOUS/HILLY
2. (F) LIGHT CONDITION - DARK NIGHT
3. (C) PLANNED APPROACH - POOR - PILOT IN COMMAND(CFI)
4. (C) ALTITUDE - INADEQUATE - PILOT IN COMMAND(CFI)
5. (F) VISUAL/AURAL PERCEPTION - PILOT IN COMMAND(CFI)

Factual Information

HISTORY OF FLIGHT

On May 25, 1993, at approximately 2114 mountain daylight time, a Fairchild SA-226T airplane, N241DT, was destroyed upon impact with trees and terrain while circling to land at the Santa Fe County Municipal Airport near Santa Fe, New Mexico. The airplane was operated by Peacock's Flying Service Inc., a 14 CFR Part 135 on-demand air taxi operator. All three crew members and a Federal Aviation Administration (FAA) inspector aboard the airplane were fatally injured. Visual meteorological dark night conditions prevailed for the check flight.

According to the operator, the purpose of the flight was to conduct Part 135 checkrides for a pilot in command and a second in command upon completion of the crew's training. A Federal Aviation Administration inspector was seated in the cabin to observe the checkrides.

According to the Santa Fe Airport control tower operator, the airplane completed a third ILS approach to Runway 2 and was cleared to circle to land on Runway 15. The airplane was observed overflying Runway 15 and lined up for Runway 20. The tower advised the pilot that he was lined up with Runway 20 and was given the option to land on either Runway 15 or 20. The pilot opted for Runway 15, and was cleared to enter a right downwind for Runway 15. The tower cleared the airplane to land while it was established on a right base for Runway 15. The airplane was observed to impact near the crest of a hill at the 6,870 foot level, approximately 5 miles west of the airport. The circling altitude for the approach was 6,860 feet. A post impact fire destroyed the airplane.

AIRCRAFT INFORMATION

A review of the airplane and engine maintenance records was completed by an Federal Aviation Administration (FAA) inspector. No anomalies or uncorrected discrepancies were found. The airplane was serviced with 200 gallons of Jet A fuel prior to the accident flight.

COMMUNICATIONS

The transcript from all pertinent communications between the airplane and the Santa Fe Airport Air Traffic Control Facility are enclosed in this report. Voice recordings confirmed that all of the transmissions made from the airplane were made by the pilot in command, who was a contract instructor.

AERODROME INFORMATION

The Santa Fe Municipal Airport is located nine miles southwest of the city. The area surrounding the airport is sparsely populated and lights or visual references are scarce. Operators and pilots interviewed by the investigator-in-charge at the airport stated that they normally avoided any type of maneuvering at night to the north and northwest of the airport because "on dark nights that area is like flying into a black hole." No radar coverage was available in the immediate area of the airport below 10,000 feet MSL.

WRECKAGE AND IMPACT INFORMATION

The trees and bushes at the initial point of impact were cut at a measured angle of approximately 15 degrees to the right. The wreckage was scattered in a linear pattern on a

measured heading of 010 degrees over approximately 500 yards from the initial point of impact. All aircraft components and wreckage was found within 50 yards on either side of the centerline of the wreckage linear pattern. The main wreckage was located approximately 400 yards from the initial point of impact, and consisted of the majority of the fuselage, the empennage, the remains of both wings, and the cockpit area. Refer to the wreckage diagram enclosed in this report.

Both engines sustained impact damage and were found separated from their engine mounts. All three blades on both propellers remained attached to their hubs, and were found approximately 20 feet from each other, about two thirds of the way from the initial point of impact. Both propellers exhibited S-bending, chordwise gouging, and scratching. The leading edges of all propeller blades exhibited dents and gouges. The outer 6 to 8 inch portion of each propeller blade were separated by impact damage.

The flap actuators were found in the fully extended (full flap) position, and the landing gear was found in the retracted position.

All flight controls were accounted for at the accident site. A flight control continuity check could not be accomplished due to the severity of the fire damage.

MEDICAL AND PATHOLOGICAL INFORMATION

Autopsies and toxicological tests were requested and performed on the crewmembers. The autopsies were performed by Doctors Michael Ward and Ross Zumwalt of the State of New Mexico Office of the Medical Investigator, in Albuquerque, New Mexico, on May 27, 1993. Toxicology tests were negative.

FIRE

A post impact fire destroyed the airplane. According to airport and fire department personnel, the wreckage burned for 55 minutes before it self extinguished. Airport Rescue and Fire Fighting equipment was unable to reach the accident site due to the terrain. The investigating team could not find any evidence of a pre-impact fire.

TEST AND RESEARCH

Both engines were transported to the manufacturer's facility for a complete teardown and evaluation on July 5-6, 1993. Examination of the engines did not disclose any mechanical problems that could have prevented normal operation.

ADDITIONAL DATA

The wreckage was released to the owner's representative at the completion of the field investigation on May 28, 1993.

Pilot Information

Certificate:	Airline Transport; Flight Instructor; Commercial	Age:	41, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Helicopter	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	11/10/1992
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	7125 hours (Total, all aircraft), 3550 hours (Total, this make and model), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	FAIRCHILD	Registration:	N241DT
Model/Series:	SA-226T SA-226T	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	T242
Landing Gear Type:	Retractable - Tricycle	Seats:	10
Date/Type of Last Inspection:	09/02/1992, AAIP	Certified Max Gross Wt.:	12500 lbs
Time Since Last Inspection:	77 Hours	Engines:	2 Turbo Prop
Airframe Total Time:	3677 Hours	Engine Manufacturer:	GARRETT
ELT:	Installed, not activated	Engine Model/Series:	TPE331-3U
Registered Owner:	G & G PARTNERSHIP	Rated Power:	840 hp
Operator:	RUSS PEACOCK	Operating Certificate(s) Held:	On-demand Air Taxi (135)
Operator Does Business As:	PEACOCK'S FLYING SERVICE, INC.	Operator Designator Code:	OPKA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	SAF, 6344 ft msl	Distance from Accident Site:	5 Nautical Miles
Observation Time:	2115 MDT	Direction from Accident Site:	90°
Lowest Cloud Condition:	Unknown / 8000 ft agl	Visibility	40 Miles
Lowest Ceiling:	Broken / 8000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	15 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	160°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	18° C / 6° C
Precipitation and Obscuration:			
Departure Point:	ALBUQUERQUE, NM (ABQ)	Type of Flight Plan Filed:	Company VFR
Destination:		Type of Clearance:	VFR
Departure Time:	2030 MDT	Type of Airspace:	Class D; Class E

Airport Information

Airport:	SANTA FE MUNICIPAL (SAF)	Runway Surface Type:	Asphalt
Airport Elevation:	6340 ft	Runway Surface Condition:	Dry
Runway Used:	15	IFR Approach:	Circling; Practice; Visual
Runway Length/Width:	6304 ft / 150 ft	VFR Approach/Landing:	

Wreckage and Impact Information

Crew Injuries:	3 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	HECTOR R CASANOVA	Report Date:	06/22/1994
Additional Participating Persons:	GARY R GOMES; ALBUQUERQUE, NM		
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.ntsb.gov/pubdms/ .		

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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](#).