



National Transportation Safety Board Aviation Accident Final Report

Location:	SPENCER, IA	Accident Number:	CHI98LA050
Date & Time:	11/29/1997, 0900 CST	Registration:	N22NC
Aircraft:	Cessna 402B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

The pilot made four missed ILS approaches at the airport. He stated that he did not see the approach lights during any of the approaches and did not feel comfortable making a landing. The reported visibility during these approaches was 1/2-statute mile. On the fifth approach the pilot said he had '...mistaken closely inline cars and a road for the MALSR and runway.' He pilot stated the airplane continued to descend after initiating a go-around. He said he saw on-coming traffic in front of him, and turned the airplane to the right. He said he lost altitude and the right wing struck the ground. The pilot's employers operations specification require a 1/4-mile increase in visibility for an ILS approach that does not have an operating approach lighting system. The approach lights were checked by the airport manager and were confirmed to be in working order. An on-scene investigation revealed no pre-accident airframe or engine anomalies that would have prevented normal flight.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot failure to comply with the prescribed IFR procedure and his not following his company's operations specifications. Low clouds and fog were are contributing factors.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: APPROACH - FAF/OUTER MARKER TO THRESHOLD (IFR)

Findings

1. TERRAIN CONDITION - GROUND
2. WEATHER CONDITION - LOW CEILING
3. WEATHER CONDITION - FOG
4. (C) IFR PROCEDURE - NOT FOLLOWED - PILOT IN COMMAND
5. PROCEDURES/DIRECTIVES - NOT COMPLIED WITH - PILOT IN COMMAND
6. (C) DECISION HEIGHT - NOT COMPLIED WITH - PILOT IN COMMAND

Factual Information

On November 29, 1997, at 0900 central standard time (cst), a Cessna 402B, N22NC, piloted by a commercial pilot, was destroyed during a collision with the ground following a collision avoidance maneuver involving a truck along a highway about 1.5 miles northwest of the Spencer Municipal Airport, Spencer, Iowa. Instrument meteorological conditions prevailed at the time of the accident. The 14 CFR Part 135 flight was operating on an IFR flight plan. The pilot reported no injuries. The flight departed Cedar Rapids, Iowa, at 0640 cst.

During an interview with the pilot it was revealed he had made 4 missed Instrument Landing System (ILS) approaches to runway 12 at Spencer Municipal Airport, Spencer, Iowa, before the accident. He said he saw the runway during each approach but did not feel comfortable with making a landing from the approach. The pilot said the approach lights were not functioning during each ILS approach. During the fifth ILS approach the pilot said he had lined the airplane up with a highway near the airport. He said he realized this was incorrect and decided to go-around. During the go-around maneuver the airplane's right wingtip collided with the ground.

The pilot said that he did 4 ILS approaches before the accident approach. During the first approach, he said he did not get down to decision height. He said he descended to decision height on the following three approaches and saw the runway but not until after reaching decision height and initiating the missed approach. After the third missed approach, the pilot said he called Spencer Unicom to confirm that the approach lights for runway 12 were operating. The pilot said he was given instructions on how to operate the approach lights, but asked "...if Unicom would key the lights up for me." The operator of the Unicom frequency said that the runway and taxi lights were on, but they could not tell if the approach lights were on.

Runway 12 was equipped with a Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights. The runway was also equipped with a 4-box Visual Approach Slope Indicator system.

While on the fourth ILS approach, the pilot said, "At missed approach point can't see any approach lights or strobes." The pilot said that during the missed approach "...there was the runway, the center portion of it somewhere." The pilot said he decided he had enough fuel for another ILS approach and a flight to his alternate. He said that he called Center for another approach and informed Center he wanted to go to Sioux Falls (his alternate) if he were unable to complete the approach successfully. When he was cleared for the approach, the pilot said he "turned to [the] common traffic frequency, [and] keyed up the lights." The pilot said that he "...saw what appeared to be the MALSR and runway." He said he initiated landing checks and throttled back. He then said that he realized it was a mistake and that he had "...mistaken closely inline cars and a road for the MALSR and runway" and "...went into go-around phase."

The pilot stated the airplane continued to descend, and that he "kept the straight-ahead, leveled the wings, and back pressure as [the] airspeed allowed." He said he saw on-coming vehicle traffic in front of him, and turned the airplane to the right. He said he lost altitude, and applied full back pressure. The pilot stated the "right wing struck first," and the "airplane skidded to a stop in a bean field."

An interview statement from the truck driver who was traveling westbound on Highway 18 when N22NC was on the accident approach said that the plane "...was coming right out of the

fog." The truck driver said he "swerved off as far as I could... . It looked like we were going to have a collision... ." The highway that the pilot mistook for the runway is approximately 1.5 miles north of Runway 12's approach end. The highway is oriented in an east-west direction. The accident site was to the south side of Highway 18 about 200-yards west-northwest of the airport's north boundary.

Federal Aviation Administration (FAA) Air Traffic Control (ATC) Records confirm that N22NC made 5 ILS approaches to Runway 12 at the Spencer, Iowa airport. This record shows the pilot advised ATC, "...every time I shoot the lights seem like they don't wanna come on and I'm havin' them check it right now."

An on-scene investigation revealed no pre-accident airframe or engine anomalies that would have prevented normal flight. The approach lights were checked by the airport manager and were confirmed to be in working order. The manager said two other airplanes landed shortly after the accident. There were no reported discrepancies with the ILS.

According to the FAA's Aeronautical Information Manual, the ILS is made up of five parts: The localizer, glideslope, outer and middle markers, and the approach lights. The FAA's Instrument Flying Handbook, AC-61-27C, confirms this and explains the reason for these lights. The approach plate book containing runway 12's ILS approach plate showed that the minimum visibility requirement for the runway 12 ILS, with inoperative approach lights, must be increased from 1/2-statute mile to 3/4-statute mile. 14 CFR Part 135.225 (a)(2) says that "No pilot may begin an instrument approach to an airport unless the latest weather report issued by that weather reporting facility indicates that weather conditions are at or above the authorized IFR landing minimums for that airport." The visibility at the accident airport was reported to be 1/2-statute mile at the time the approaches were made.

The company's Operations Specifications show that the required visibility for an ILS approach, where approach lights are not available, is 3/4-statue mile. These specifications allow the pilot to make a contact approach if the pilot receives ATC authorization. The ATC transcript does not show the pilot requesting this type approach or receiving authorization from ATC to do such an approach. The meteorological conditions at the accident airport did not meet the criteria for a visual approach. Information regarding these approaches is appended to this report. An excerpt from the Operations Specifications regarding an ILS approach without the approach lighting system is also appended to this report.

Pilot Information

Certificate:	Commercial	Age:	31, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	12/31/1996
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	1712 hours (Total, all aircraft), 197 hours (Total, this make and model), 197 hours (Pilot In Command, all aircraft), 214 hours (Last 90 days, all aircraft), 56 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N22NC
Model/Series:	402B 402B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	402B0227
Landing Gear Type:	Retractable - Tricycle	Seats:	2
Date/Type of Last Inspection:	06/19/1997, 100 Hour	Certified Max Gross Wt.:	6300 lbs
Time Since Last Inspection:	52 Hours	Engines:	2 Reciprocating
Airframe Total Time:	7998 Hours	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	TSIO-520-E
Registered Owner:	DWYER AIRCRAFT	Rated Power:	300 hp
Operator:		Operating Certificate(s) Held:	On-demand Air Taxi (135)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	SPW, 1339 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	0853 CST	Direction from Accident Site:	300°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	0.5 Miles
Lowest Ceiling:	Overcast / 100 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	Light and Variable /	Turbulence Type Forecast/Actual:	/
Wind Direction:	Variable	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	1°C / 3°C
Precipitation and Obscuration:			
Departure Point:	CEDAR RAPIDS, IA (CID)	Type of Flight Plan Filed:	IFR
Destination:	(SPW)	Type of Clearance:	IFR
Departure Time:	0640 CST	Type of Airspace:	Class E

Airport Information

Airport:	SPENCER MUNICIPAL (SPW)	Runway Surface Type:	Concrete
Airport Elevation:	1339 ft	Runway Surface Condition:	Dry
Runway Used:	12	IFR Approach:	ILS
Runway Length/Width:	6000 ft / 100 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	FRANK S GATTOLIN	Report Date:	02/28/2000
Additional Participating Persons:	EUGENE LAWSON; DES MOINES, IA		
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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