



National Transportation Safety Board Aviation Accident Final Report

Location:	TRUCKEE, CA	Accident Number:	LAX98LA114
Date & Time:	03/13/1998, 1900 PST	Registration:	N345RD
Aircraft:	Socata TBM 700	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	4 Minor
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot was cleared for a GPS approach. He stated that he was too high to make a good landing, so he opted for a circling approach to another runway. As he turned for the base leg, he lost visual contact and became disoriented. It was a dark night with no moon. The pilot realized that he was in a 70- to 80-degree left bank and returned the airplane to a level attitude, then noticed the ground directly in front of him. The aircraft ran through a barbed wire fence, collided with trees, and slid rearward to a stop in a high altitude meadow east of the airport. The FAA completed an evaluation of the circling approach procedures and night operations for that airport and did not find any problems.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the pilot to maintain control of the aircraft due to spatial disorientation. A factor was the dark night.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: CIRCLING (IFR)

Findings

1. (F) LIGHT CONDITION - DARK NIGHT
2. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
3. (F) SPATIAL DISORIENTATION - PILOT IN COMMAND

Factual Information

On March 13, 1998, about 1900 hours Pacific standard time, a Socata TBM 700, N345RD, collided with terrain about 0.5 miles east of the Truckee, California, airport. The airplane was destroyed, and the commercial pilot and three passengers received minor injuries. The airplane was being operated as a personal flight by the pilot/owner. The flight originated from Gness Field in Novota, California, at 1800. Night visual meteorological conditions prevailed at the time and an IFR flight plan was filed.

The Truckee Airport was reporting visual meteorological conditions with 10 miles visibility and a 1,700-foot agl overcast ceiling. The pilot was cleared by Oakland Center Approach Control for a Global Positioning System (GPS) approach to runway 19. He reported that there was a bluff near runway 19 with housing on it, which made him uncomfortable, so he delayed his descent to the minimum descent altitude (MDA). When he did descend, he felt that he was too high to make a good landing on the runway so he opted instead to perform a circling approach to runway 28. The pilot stated that as he initiated a left turn for the base leg of runway 28, he became preoccupied with maintaining visual contact with the airport. It was a dark night with no moon. The pilot reported that he soon lost visual contact and became disoriented. The attitude indicator showed the aircraft to be in a 70- to 80-degree left bank.

As the pilot returned the airplane to a straight and level attitude, he noticed the ground directly in front of him. The aircraft ran through a barbed wire fence, collided with trees, and slid rearward to a stop in a high altitude meadow east of the airport.

The Federal Aviation Administration Flight Inspection Field Office in Sacramento, California, conducted an evaluation of the GPS approach for runway 19 with circle to land minimums at night for all categories, the elevation differential around the airport, and overall night operations at the Truckee Airport. They reported that they did not find any problems with the approach.

Pilot Information

Certificate:	Commercial	Age:	65, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	11/01/1996
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	2088 hours (Total, all aircraft), 1200 hours (Total, this make and model), 1940 hours (Pilot In Command, all aircraft), 75 hours (Last 90 days, all aircraft), 21 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Socata	Registration:	N345RD
Model/Series:	TBM 700 TBM 700	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	76
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	03/09/1998, Annual	Certified Max Gross Wt.:	6579 lbs
Time Since Last Inspection:	4 Hours	Engines:	1 Turbo Prop
Airframe Total Time:	1119 Hours	Engine Manufacturer:	P&W
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	PT6A-64
Registered Owner:	DOLBY, RAY M.	Rated Power:	700 hp
Operator:	DOLBY, RAY M.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	TRK, 5900 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1850 PST	Direction from Accident Site:	0°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	Overcast / 1700 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	10°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	2° C / 1° C
Precipitation and Obscuration:			
Departure Point:	NOVATO, CA (O56)	Type of Flight Plan Filed:	IFR
Destination:	(TRK)	Type of Clearance:	IFR
Departure Time:	1800 PST	Type of Airspace:	Class E

Airport Information

Airport:	TRUCKEE-TAHOE (TRK)	Runway Surface Type:	Asphalt
Airport Elevation:	5900 ft	Runway Surface Condition:	Dry
Runway Used:	19	IFR Approach:	Circling
Runway Length/Width:	4650 ft / 75 ft	VFR Approach/Landing:	

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	THOMAS H WILCOX	Report Date:	08/03/1999
Additional Participating Persons:	ROBERT C WAGNER; RENO, NV		
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 pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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