Aviation Investigation Final Report

Location:	SAN DIEGO, California	**Accident Number:**	LAX99FA150
Date & Time:	April 15, 1999, 05:22 Local	**Registration:**	N7706R
Aircraft:	Beech 36	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot contacted FSS and requested weather at several local San Diego airports. He was told to expect low IFR conditions with visibility less than 1/4 mile in fog and indefinite ceilings of 100 feet. The pilot then obtained a clearance to enter the Class B airspace using a fictitious call sign. He requested and was issued an IFR clearance to the airport, and was later cleared for the ILS runway 28R approach. Prior to issuing the approach clearance, the controller asked the pilot what his intentions would be when he made the missed approach. The pilot replied that he would want radar vectors for a second approach. Numerous times on the approach the controller either asked the pilot if he was receiving the glideslope satisfactorily, or told him his position and what his altitude along the approach segments should have been. The controller issued two low altitude alerts; the final one at the outer marker where the airplane was observed 300 feet low. Recorded radar data showed that the airplane was consistently below ATC assigned and charted minimum descent altitudes for most of the approach. The airplane collided with trees and the ground about 1 mile short of the runway. Two ground witnesses reported hearing a loud noise and began looking for the source of the noise. They almost ran over the downed trees and the burning aircraft wreckage before acquiring it visually due to the dense fog. None of the pilot's personal logbooks or aircraft records could be located to establish his instrument currency, although the pilot's daughter stated that he flew fairly frequently. A postaccident examination of the airplane revealed no abnormalities in either the engine or the airframe. The day before the accident the same airplane had been observed entering Class B airspace and landing at a controlled field without an ATC clearance.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain the proper glidepath during an ILS approach. A factor in the

accident was the pilot's disregard for the weather reports, which showed the airport as being below landing minimums.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: APPROACH - FAF/OUTER MARKER TO THRESHOLD (IFR)

Findings
1. WEATHER CONDITION - BELOW APPROACH/LANDING MINIMUMS
2. WEATHER CONDITION - FOG
3. WEATHER FORECAST - DISREGARDED - PILOT IN COMMAND
4. OVERCONFIDENCE IN PERSONAL ABILITY - PILOT IN COMMAND
5. PROPER GLIDEPATH - NOT MAINTAINED - PILOT IN COMMAND

Factual Information

HISTORY OF FLIGHT

On April 15, 1999, at 0522 hours Pacific daylight time, a Beech 36, N7706R, collided with eucalyptus trees and power transformers on a city street near an industrial park adjacent to the Montgomery Field Airport, San Diego, California. The airplane was on an instrument landing system (ILS) approach to runway 28R when the accident occurred. The airplane, owned and operated by the pilot, was destroyed during the impact sequence and subsequent ground fire. The private pilot and his passenger, the sole occupants, sustained fatal injuries. The personal flight was being conducted under 14 CFR Part 91 when the accident occurred. The flight originated at Calexico, California, at an unknown time. Instrument meteorological conditions prevailed at the time of the accident.

A receipt found at the crash site indicated that the pilot checked out of his hotel room in Calexico at 0414. There were no eyewitnesses who observed the pilot depart from Calexico.

A review of Federal Aviation Administration (FAA) records disclosed that at 0328, the pilot of the accident airplane telephoned San Diego Flight Service Station (FSS) and said that he was on the ground at Calexico, and wanted to know the weather reports for Montgomery Field. The FSS briefer stated that Montgomery Field was reporting "less than one quarter of a mile, fog, indefinite ceiling one hundred, temperature eleven, dew point eleven." The pilot then asked FSS what the forecast was for Montgomery Field. The briefer told him that IFR conditions would continue through the morning hours with low stratus clouds and fog. He also stated that Lindbergh Field was calling for 2 miles in mist with 300-feet overcast skies.

The pilot called FSS back at 0350 and asked what Gillespie Field was reporting. The FSS briefer told him that Gillespie doesn't report weather at night, and the closest airport he had was Montgomery Field. He reported their automated system was reporting measured 1/4-mile visibility in fog and an indefinite ceiling of 100 feet.

At 0506, the pilot contacted the FAA Southern California Terminal Radar Approach Control (Socal TRACON) at 6,500 feet while en route from Calexico to Montgomery Field. During this, and subsequent contacts with TRACON, the pilot used the aircraft call sign N3930F. The pilot requested weather information and was told to contact San Diego radio. At 0507, the pilot recontacted Socal TRACON and requested "radar vectors to the ILS." The controller issued a heading and a clearance to enter the San Diego Class B airspace, and told the pilot to expect his IFR clearance in 15 miles.

At 0512, the pilot was issued an IFR clearance to the airport. During this exchange, the controller asked the pilot what his intentions were "in the advent of a missed approach." The

pilot responded by reciting the missed approach procedure. The controller then clarified his request by saying "I wasn't asking for the missed approach procedure, I just wanted to know what you wanted to do if you make a missed approach at Montgomery . . . do you want to go somewhere else." The pilot's response was "negative, radar vectors to a second approach." The pilot was subsequently cleared for the ILS runway 28R approach at 0515.

The controller notified the pilot at 0517 that he was receiving a low altitude alert, and that he should check his altitude immediately. The controller stated "you're still one mile east of NESTY (intersection) and your altitude should be 3,800." Review of the recorded radar data disclosed that the airplane's mode C report at this point was 3,100 feet. At 0518, the controller asked 30F (the call sign used by the pilot instead of N7706R) if he was receiving the glide slope satisfactorily, and the pilot replied "affirmative." One minute later the controller told the pilot "low altitude alert . . . check your altitude immediately, altitude should be 2,100 feet until DEORO (another intersection which is also the outer marker for the ILS approach)." Review of the recorded radar data showed the airplane's mode C report to be 1,800 feet at this point. The glide slope intercept at DEORO is published as 2,070 feet. The controller then advised the pilot to contact the Montgomery advisory frequency, since the control tower was not operating at this time.

A review of the recorded radar data provided by the FAA revealed that the mode C reports for the airplane were consistently below air traffic control (ATC) assigned and mandatory instrument approach step down and glideslope altitudes during most of the approach sequence.

Two witnesses reported hearing a loud explosion and witnessed the streetlights go out following an electrical power failure at 0522. The first witness said that due to the dense fog in the area, he could not see the wreckage until he was within 4 yards of it. The first eyewitness stated he was driving up Ruffin Road when he heard an explosion. He stated he was approximately 1/4 of the way up the road when he noticed debris from the Eucalyptus tree limbs on the roadway. He said that the fog was so bad he almost hit the tree limbs.

The second eyewitness stated he heard a loud "thump" and immediately noticed that the power went out to the area. He stated he noticed an airplane fully engulfed in flames, but the cockpit was intact. He emptied a 5-pound fire extinguisher on the aircraft with no success. He then said he attempted to secure the scene and search for any additional victims that might have been thrown from the airplane.

PERSONNEL INFORMATION

According to the pilot's daughter, the pilot flew to Calexico with some degree of frequency. She said he often flew down there in order to purchase automotive parts. The daughter said the pilot departed Phoenix, Arizona, on April 10, 1999, and originally planned to fly back to Phoenix via Bermuda Dunes Airport on April 15, 1999. The daughter was unable to verify his exact route of flight or intentions once he landed at Montgomery Field.

Certified copies of the pilot's FAA airman and medical record files were obtained from FAA Airman Certification Branch in Oklahoma City, Oklahoma. A review of the records revealed that the pilot's medical certificate was administratively denied in July 1994 by the FAA's Aeromedical Certification Division. An Airman Stop Order, dated June 19, 1995, was located on the top page of the airman file. It noted that the Assistant Chief Counsel of the FAA Western Pacific Region revoked the pilot's private pilot certificate and airman medical certificate held by the pilot on an emergency basis. The reasons given for the emergency revocation were that the pilot had completed an application for an airman medical certificate dated July 1, 1994. In that application, the pilot marked the answer "no" to question No. 18 referencing a history of mental disorders and any suicide attempts. Additionally, the revocation letter stated that on December 27, 1993, in the Superior Court of Arizona in and for Maricopa County, the pilot was detained for an evaluation based on a finding by the court that the pilot was mentally disordered and in need of care, supervision, treatment, or restraint.

Additionally, the revocation order stated that the pilot had attempted to commit suicide by overdose on three occasions prior to the above mentioned court order, and had admitted suffering from depression. The file also contained a letter written by his physician to the Flight Surgeon, FAA Western Pacific Region. The physician reported in part, that the pilot once threatened to commit suicide by intending to crash his airplane.

The pilot's daughter reported that the pilot's personal flight records could not be located and no pilot logbooks were found in the wreckage. The pilot's recent flight experience, including recent instrument flights and approaches, could not be established through any source available to the investigation.

AIRCRAFT INFORMATION

The airplane was owned and operated by the pilot. A diligent search to locate the maintenance records on the engine, propeller, and airframe was conducted, with only the propeller logbook located by family and friends. The propeller logbook contained no entries. Family and friends were unable to document any maintenance history on the airplane.

METEOROLOGICAL INFORMATION

The airport has an automatic weather observation station. The METAR reports for 2 hours before and after the accident time were identical and reported in part: winds calm; visibility 1/4 mile in fog; indefinite ceiling 100 feet; temperature and dew point 11 degrees Celsius; altimeter 29.95.

San Diego Lindbergh Field airport is located about 6 miles south of Montgomery Field airport, and is 413 feet lower in elevation. During the same time frame, the METAR reports for Lindbergh were showing visibility 2 miles in fog with overcast ceiling of 300 feet.

AIDS TO NAVIGATION

Runway 28R at Montgomery Field is equipped with an ILS approach, with an inbound course of 281 degrees magnetic. The charted Category A aircraft landing minimums are a descent altitude of 621 feet msl (200 feet agl), and a visibility of 1/2-mile. The touchdown zone elevation is 421 feet msl.

According to FAA facility records, all components of the ILS were functioning on the day of the accident.

WRECKAGE AND IMPACT INFORMATION

The first identifiable ground contact point was a disturbed Eucalyptus tree on the west side of the street in the 3700 block of Ruffin Road. Ruffin Road is located in a business complex adjacent to Montgomery Field. The roadway is oriented on a north-south orientation. The main wreckage was oriented on a magnetic bearing of 344 degrees, and the airport was determined to be 1.0 mile on a magnetic bearing of 267 degrees.

Debris and ground scars were distributed on a median magnetic bearing of 335 degrees from the Eucalyptus tree. A 20-degree angle to the horizontal was measured from the tree disturbance to the next ground scar on the street. Semicircular indentations were noted on the outboard left wing tip, which matched the geometry and dimensions of the disturbed tree sections. Measurements of the crush lines on the damaged wing tip areas disclosed that semicircular indentations axis was about 30 degrees to the vertical in left/right orientation and pointed to the left, while the fore and aft orientation was about 5 degrees from vertical and was pointed aft.

Examination of the wreckage revealed that the landing gear actuator was full down, and the actuator for the left wing flap was measured at an extension of 1 9/16 inches, which according to Raytheon was consistent with a fully retracted flap position. The right wing flap actuator had been consumed by the postimpact fire.

There were six very pronounced propeller slash marks found on Ruffin Road. The first four propeller slash marks were equally spaced about 18 inches apart. The propeller separated from the engine crankshaft flange and was found in the debris field next to a tree on the northbound lanes of Ruffin Road. The spinner of the airplane had chunks of freshly broken wood found in a crack on the skin.

A postimpact fire consumed the cockpit interior, and heavily damaged the exterior of the airplane.

An on-site examination of the contents of the airplane that had not been consumed by fire revealed no evidence of any instrument approach plates for this airport or any other airport onboard the airplane.

The engine was examined at Aircraft Recovery Services, Compton, California, on April 16, 1999. The top spark plugs and rocker covers were removed and examined. The spark plugs exhibited normal operating signatures. The crankshaft was rotated by hand and mechanical continuity was established through the accessory drive train and valves, with compression developed in all six cylinders. Both magnetos were tested for spark and found operable. The vacuum pump was disassembled and its rotor and vanes were found to be intact.

The metering unit fuel inlet screen was examined and found clean of debris.

The propeller had stripped away from its crankshaft mounting flange bolts. The individual blades were missing the tips of the blades and were extensively deformed. They also had deep chordwise scratches located on each blade.

The left and right elevator trim tab actuator extensions were 1 1/2 inches, which the Raytheon representative said were consistent with an 8- to 9-degree down trim tab deflection (nose trim up). Control system continuity was established from the rudder and elevator to the cockpit controls, and out to the ailerons on the left and right wings.

The main cabin door was found in a latched position with the pins engaged.

MEDICAL AND PATHOLOGICAL INFORMATION

Autopsies on the pilot and the passenger were performed by the County of San Diego, Office of the Medical Examiner, with tissue and fluid samples retained for toxicological examination. The samples were submitted to the FAA Civil Aeromedical Institute (CAMI) in Oklahoma City. Separate toxicological studies were conducted by the County of San Diego, Office of Medical Examiner. The pilot was positively identified through his Arizona Driver's License and his dental records.

According to the Manager, Toxicology and Accident Research at CAMI, the samples from the pilot were negative for carbon monoxide, cyanide, and ethanol. The samples were positive for Paroxetine 0.068 (ug/mL, ug/g) detected in blood, and 0.019 (ug/mL, ug/g) Paroxetine detected in urine.

The second toxicological examination performed in San Diego was negative for all screened drug substances.

ADDITIONAL INFORMATION

A statement was provided from an FAA inspector from the San Diego Flight Standards District Office. He reported that on April 14, 1999, he received a telephone call from San Diego Lindbergh Air Traffic Control Tower concerning the accident airplane. The airplane was observed entering the San Diego (Lindbergh Field) final approach course without ATC

clearance. The airplane continued in San Diego class "B" airspace without clearance. The airplane was identified and tracked by Socal TRACON to San Diego Brown Field where it landed without an ATC clearance. The time of the incursion was 1340.

The wreckage was released to the daughter, representing her father's estate, at the conclusion of the component examination on May 25, 1999.

Pilot Information

Certificate:	Private	**Age:**	62,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	None None	**Last FAA Medical Exam:**	
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	900 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	**Registration:**	N7706R
Model/Series:	36 36	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	E-106
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	Unknown	**Certified Max Gross Wt.:**	3600 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Continental
ELT:	Installed, not activated	**Engine Model/Series:**	IO-520-BA
Registered Owner:	DAVID R. RAYTY	**Rated Power:**	285 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Night/dark
Observation Facility, Elevation:	MYF ,427 ft msl	**Distance from Accident Site:**	1 Nautical Miles
Observation Time:	04:53 Local	**Direction from Accident Site:**	155°
Lowest Cloud Condition:	Unknown	**Visibility**	
Lowest Ceiling:	100 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	0°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	10°C / 10°C
Precipitation and Obscuration:	N/A - None - Fog		
Departure Point:	CALEXICO , CA (CXL)	**Type of Flight Plan Filed:**	None
Destination:	(MYF)	**Type of Clearance:**	IFR
Departure Time:	00:00 Local	**Type of Airspace:**	Class D

Airport Information

Airport:	MONTGOMERY FIELD KMYF	**Runway Surface Type:**	Asphalt
Airport Elevation:	427 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	28R	**IFR Approach:**	ILS
Runway Length/Width:	4577 ft / 150 ft	**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	1 Fatal	**Aircraft Fire:**	On-ground
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Fatal	**Latitude, Longitude:**	32.799602,-117.129882(est)

Administrative Information

Investigator In Charge (IIC):	Childress, Deborah
Additional Participating Persons:	JEFFREY M REYNOLDS; SAN DIEGO , CA CHUCK MOTE; TUCSON , AZ MIKE GRIMES; LANCASTER , CA DON KNUTSON; WICHITA , KS
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Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=46132

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties … and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available here.