



Aviation Investigation Final Report

Location:	Ukiah, California	Accident Number:	LAX04FA177
Date & Time:	April 4, 2004, 08:10 Local	Registration:	N4130D
Aircraft:	Piper PA-32R-301T	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The non-instrument rated private pilot attempted to depart an airport in instrument meteorological conditions. Prior to departure, the pilot talked to another, airborne pilot in the area, and confirmed the airport's reported conditions of an overcast layer at 100 feet above ground level (agl). The accident pilot indicated to the other pilot that he intended to depart VFR. Several witnesses reported that they observed the airplane departing to the south. It then turned toward the west at low level and subsequently turned back to the east. They further noted that the engine sound remained constant, continuing until the sound of a loud crash. The airplane contacted vegetation just prior to colliding with the ground, and the debris path continued along a southerly heading. Investigators examined the extensively crushed and fragmented wreckage, and identified no preimpact mechanical malfunctions or failures. The pilot had logged about 7 hours of simulated instrument time.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The non-instrument rated pilot's flight intentional flight into instrument meteorological conditions during takeoff-initial climb, which resulted in spatial disorientation, a subsequent loss of aircraft control, and an uncontrolled descent into terrain. A factor in the accident was the pilot's lack of an instrument rating and a low ceiling.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER

Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. WEATHER CONDITION - LOW CEILING
2. (C) VFR FLIGHT INTO IMC - INITIATED - PILOT IN COMMAND
3. (F) LACK OF CERTIFICATION - PILOT IN COMMAND

Occurrence #2: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

4. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
5. (C) SPATIAL DISORIENTATION - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

6. TERRAIN CONDITION - HIGH VEGETATION
7. TERRAIN CONDITION - ROADWAY/HIGHWAY

Factual Information

HISTORY OF FLIGHT

On April 4, 2004, about 0810 Pacific daylight time, a Piper PA-32R-301T Saratoga SP II, N4130D, experienced an in-flight collision with terrain about 2 minutes after departing from the Ukiah Municipal Airport, Ukiah, California. Gypsy Flyer, Inc., was operating the airplane under the provisions of 14 CFR Part 91. The private pilot, the sole occupant, sustained fatal injuries; the airplane was destroyed. The personal cross-country flight was en route to Willows, California. Instrument meteorological conditions prevailed, and a flight plan had not been filed. The primary wreckage was at 39 degrees 07.34 minutes north latitude and 123 degrees 11.605 minutes west longitude.

In an interview with the National Transportation Safety Board investigator-in-charge (IIC), an air ambulance helicopter pilot with an airline transport pilot rating stated that he was airborne and en route to Ukiah during the accident. While approaching the vicinity of the airport, he noted that visual meteorological conditions prevailed, but observed instrument conditions materializing. He monitored the Ukiah Automated Surface Observing System (ASOS), which reported conditions of 100 feet overcast, with visibility between 1 and 1 3/4 miles. After receiving a clearance from Air Route Traffic Control Center (ARTCC) Oakland Center, he attempted the localizer approach into Ukiah. While on the approach, over the Mendocino VOR (very high frequency omni-directional radio range), he noted that a layer of fog blanketed the valley, diminishing to clearer conditions to the north of town.

The air ambulance pilot maneuvered the helicopter to the edge of the fog bank and descended in an attempt to obtain visual contact with the airport. While descending, he concluded that the ASOS report was in all probability correct with the 100-foot ceiling observation. Fairly confident that he would be unable to land at the airport, he flew over the runway at 1,500 feet mean sea level (msl), navigating via the use of a global positioning system (GPS). During his pass over the airport he estimated that the top of the cloud layer was about 1,300 feet msl, and did not observe any holes or break in the layer.

As the air ambulance pilot continued flying over the runway, he heard a pilot on the UNICOM frequency announce that he was in a Piper Saratoga and preparing to depart runway 33. After the air ambulance pilot inquired about the weather conditions, the Saratoga pilot confirmed that there were no breaks in the cloud layer, and that the 100-foot ceiling appeared to be accurate. The Saratoga pilot further stated that he was intending to fly en route to Willows, where he planned on having coffee.

Several minutes later, with the air ambulance pilot remaining on the UNICOM frequency, he heard the Saratoga pilot announce that he was attempting to depart on runway 15. Looking for

inbound traffic, the air ambulance pilot asked the Saratoga pilot if he had an instrument clearance from Oakland Center. The Saratoga pilot replied, informing the air ambulance pilot that he was departing under visual flight rules (VFR). The air ambulance pilot announced that he was unable to land at the airport, and subsequently departed to a helipad about 10 miles away. Upon landing at the helipad, the air ambulance pilot heard that an accident had just occurred.

The air ambulance pilot further noted that instrument flight rules (IFR) departures in Ukiah should be executed on runway 33.

Several witnesses reported to the IIC that they observed an airplane departing to the south. It turned toward the west at low level and subsequently turned back to the east. They further noted that the engine sound remained constant, continuing until the sound of a loud crash. One witness noted that the engine sounded the same from takeoff until the accident; another witness heard the engine cough three times.

PERSONNEL INFORMATION

A review of Federal Aviation Administration (FAA) airman records revealed that the pilot held a private pilot certificate with an airplane single-engine land rating. The pilot held a third class medical certificate issued on December 19, 2002, with the restriction that he must wear glasses for near vision. An examination of the pilot's logbook indicated that he had accumulated an estimated total flight time of 300 hours, of which 170 were in the same make and model. He logged about 30 hours in the last 90 days, and 5 in the last 30 days. The pilot had logged about 7 hours of simulated instrument time, but did not possess an instrument rating.

In an interview with the IIC, the operator of the flight school where the pilot received his primary training indicated that the pilot had been flying for a couple of years. He further stated that the pilot completed his primary training in a Cessna 172, and had purchased the Saratoga in 2001. The operator and his primary instructor had admonished the pilot for flying the Cessna on unapproved solo cross-country flights. The instructor authorized him to fly within the local Ukiah area; however, he had flown a couple of hundred miles over mountainous terrain to the northern California coast.

AIRCRAFT INFORMATION

The airplane was a Piper PA-32R-301T, Turbo Saratoga II SP, serial number 3257059. A review of the airplane's logbooks revealed a total airframe time of 545 hours. The airplane had undergone an annual inspection on January 20, 2004, at a total time of 513 hours. The engine was a Textron Lycoming TIO-540-AH1A, serial number L-10013-61A.

METEOROLOGICAL INFORMATION

ASOS issued a special aviation weather report for Ukiah at 0811 PDT. It stated: skies overcast at 100-feet above ground level (agl); visibility 2 statute miles; winds from 160 degrees at 3 knots; temperature 42 degrees Fahrenheit; dew point 43 degrees Fahrenheit; altimeter 30.01 inHg. From 0721 to 0856 the ASOS reported overcast conditions at 100 feet agl. At 0912 it reported overcast at 300 feet agl, and conditions continued to clear, where at 0840, ASOS reported broken clouds at 500 feet agl and 3,800 feet agl.

According to a Safety Board density altitude computer program, using the ASOS report of 6 degrees Fahrenheit and altimeter setting of 30.01 inHg, and the airport elevation, the density altitude was calculated at -319 feet mean sea level (msl).

AIRPORT INFORMATION

The Airport/ Facility Directory, Southwest U. S., indicates that the Ukiah Municipal Airport (elevation 614 feet msl), runway 15 is 5,000 feet long (which includes the displaced threshold of 585 feet) and is 150 feet wide. The runway surface is asphalt.

WRECKAGE AND IMPACT INFORMATION

Investigators from the Safety Board and the FAA inspected the wreckage at the accident site. The first identified point of contact (FIPC) consisted of several broken tree limbs at the top of a 15-foot tall pear tree. About 10 feet from the tree were berry bushes that had a 1-foot wide by 1-foot deep grove running through them. The berry bushes ended at a creek that was about 50 feet from the FIPC. The principle impact crater (PIC) consisted of earth on the opposite side of the creek that contained ground scars and airplane parts. The debris path continued on a bearing of 190 degrees across the northbound lanes of Highway 101. As the debris path continued through the median, it turned to 180 degrees. The main wreckage was upright on both lanes of the southbound Highway 101; it was 192 feet from the FIPC. The highway ran 160/340 degrees.

The main wreckage consisted of all major components of the airframe, engine, and all of the control surfaces except the outboard section of the left wing and aileron. This piece of the left wing and the associated aileron piece separated at a production splice, and were on the highway surface near the PIC. The fuselage was on a heading of 360 degrees, and the engine was heading 020 degrees. The propeller hub separated at the flange, and was about 20 feet from the fuselage at its 11-o'clock position.

The remainder of the left wing stayed in position, and remained attached to the fuselage. The right wing partially separated, was inverted, and pointed aft, almost parallel to the fuselage. The left horizontal stabilizer separated at the front attachment point and bent up about 60 degrees; the vertical stabilizer and rudder canted left. The right horizontal stabilizer outboard edge exhibited inboard crushing.

Fire consumed the cabin and the fuel tank areas of both wings. The top half of the engine

cowling separated and was on the northbound lanes. Airplane pieces that were not in the burn area around the main wreckage were not charred, sooty, or melted.

The IIC established control continuity for all control surfaces.

MEDICAL AND PATHOLOGICAL INFORMATION

The Mendocino County Coroner completed an autopsy. The FAA Toxicology and Accident Research Laboratory performed toxicological testing of specimens of the pilot. The results of analysis of the specimens were negative for carbon monoxide, cyanide, volatiles, and tested drugs.

TESTS AND RESEARCH

Following recovery, investigators examined the airplane at the storage facility of Plain Parts, Pleasant Grove, California. Aside from an inspector from the Federal Aviation Administration, present in the investigation were representatives from The New Piper Aircraft and Textron Lycoming.

Investigators rotated the engine via the vacuum pump drive. They established the engine's internal mechanical continuity during rotation of the crankshaft and upon attainment of thumb compression. A borescope examination on all cylinders found no foreign object damage, no evidence of detonation, and no indication of excessive oil consumption.

The engine representative removed the top spark plugs. The spark plug electrodes were gray in color, which corresponded to normal operation according to the Champion Aviation Check-A-Plug AV-27 Chart.

Both main landing gear actuators were extended, which, according to The New Piper Aircraft representative, was an indication that the landing gear were extended.

The propeller separated from the crankshaft flange, with the propeller hub broken, leaving part of the hub still attached to the engine propeller flange. Three of the six bolts remained intact, with the others sheared. All propellers blades exhibited gouges on the tips, with two blades revealing S bending.

There was no evidence of pre-mishap mechanical malfunctions observed during the examination of the engine and airframe.

ADDITIONAL INFORMATION

The Safety Board IIC retained no parts, and released the wreckage to the owner's representative.

Pilot Information

Certificate:	Private	Age:	60, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	December 19, 2002
Occupational Pilot:	No	Last Flight Review or Equivalent:	May 9, 2003
Flight Time:	303 hours (Total, all aircraft), 170 hours (Total, this make and model), 180 hours (Pilot In Command, all aircraft), 37 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N4130D
Model/Series:	PA-32R-301T	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	3257059
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	January 20, 2002 Annual	Certified Max Gross Wt.:	3600 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	522 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	TIO-540-AH1A
Registered Owner:	Gypsy Flyer Inc.	Rated Power:	300 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	Condition of Light:	Day
Observation Facility, Elevation:	UKI,614 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	08:11 Local	Direction from Accident Site:	300°
Lowest Cloud Condition:	Thin Overcast	Visibility	2 miles
Lowest Ceiling:	Overcast / 100 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	3 knots / 0 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	160°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.01 inches Hg	Temperature/Dew Point:	6°C / 6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Ukiah, CA (UKI)	Type of Flight Plan Filed:	None
Destination:	Willows, CA (WLW)	Type of Clearance:	None
Departure Time:	08:10 Local	Type of Airspace:	Class E

Airport Information

Airport:	Ukiah UKI	Runway Surface Type:	Asphalt
Airport Elevation:	614 ft msl	Runway Surface Condition:	Dry;Vegetation
Runway Used:	15	IFR Approach:	None
Runway Length/Width:	4415 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	On-ground
Total Injuries:	1 Fatal	Latitude, Longitude:	39.122222,-123.199996

Administrative Information

Investigator In Charge (IIC):	Plagens, Howard
Additional Participating Persons:	Joe Gilley; Federal Aviation Administration; Oakland, CA Mike McClure; The New Piper Aircraft; Vero Beach, FL Mark Platt; Textron Lycoming; Williamsport, PA
Original Publish Date:	December 28, 2004
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=59004

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).