



National Transportation Safety Board Aviation Accident Final Report

Location:	GOLETA, CA	Accident Number:	LAX96FA226
Date & Time:	06/07/1996, 1043 PDT	Registration:	N4303X
Aircraft:	Piper PA-32R-300	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

Two instrument-rated pilots departed for a planned 24-mile instrument flight. About 5 minutes after takeoff, one of the pilots contacted the radar controller and requested an instrument landing clearance. The controller cleared the pilot for an ILS runway 7 approach to Santa Barbara. When the airplane was about 1 mile west of the final approach fix, it had descended to 1,500 feet. The published glide slope altitude for the fix was 1,774 feet. At 1042, as the airplane was still inbound toward the final approach fix, it reversed course, then it proceeded in a westerly and then a northerly direction. Radar data showed that the airplane then descend through 1,100 feet on a northeasterly heading. A low altitude alert alarm sounded in the ATC control room, and radar contact was lost. (Note: the pilots had not reported any abnormal condition with the airplane or equipment, nor was a safety advisory (alert) transmitted to the airplane.) A witness observed that the airplane came out of clouds in a steep descent and impacted the water at a high rate of speed. He estimated the visibility was 2 miles in fog. Wreckage was recovered, and no mechanical malfunction was found. A review of the pilots' logbooks and airplane utilization records revealed that neither pilot met the FAA instrument flight currency requirements.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: failure of the flying pilot to maintain control of the airplane, due to spatial disorientation, which resulted in an uncontrolled descent and collision with the water. Factors relating to the accident were: the lack of recent instrument experience by the flying pilot and the lack of monitoring (and/or remedial action) by the other pilot.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT

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

Findings

1. WEATHER CONDITION - FOG
2. WEATHER CONDITION - LOW CEILING
3. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
4. (C) SPATIAL DISORIENTATION - PILOT IN COMMAND
5. (F) LACK OF RECENT INSTRUMENT TIME - PILOT IN COMMAND
6. (F) MONITORING - INADEQUATE - COPILOT/SECOND PILOT

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

7. TERRAIN CONDITION - WATER

Factual Information

HISTORY OF FLIGHT

On June 7, 1996, at 1043 hours Pacific daylight time, a Piper PA-32R-300, N4303X, registered to Condor Air Limited, Wilmington, Delaware, crashed into the Pacific Ocean and sank about 8.9 statute miles west of the Santa Barbara Municipal Airport, Santa Barbara, California. The accident occurred in instrument meteorological weather conditions during an instrument landing system (ILS) approach to runway 07 at Santa Barbara. The airplane was destroyed, and the two instrument rated private pilots were fatally injured. The personal flight originated from Santa Ynez, California, at an estimated time of 1030.

The distance between the Santa Ynez and the Santa Barbara airports via the Gaviota Vortac (navigation aid) and the Habit intersection (approach fix) is approximately 24 nautical miles (nm).

At 1034:43, the pilot of N4303X contacted the Santa Barbara radar controller, indicated that he had just departed from Santa Ynez, and requested an approach (clearance) to Santa Barbara. The controller identified the airplane located 1 mile southeast of Gaviota, issued the pilot an instrument clearance to Santa Barbara, and instructed the pilot to descend to 3,000 feet mean sea level (msl). Recorded radar data from the Los Angeles Air Route Traffic Control Center (ARTCC) indicated that at 1036:00 the airplane was at 3,700 feet.

The controller cleared the pilot for an ILS approach at 1037:16. No acknowledgment was heard by the controller, and at 1037:30, the controller said ". . . zero three xray did you copy." Three seconds later the pilot responded and said "uh zero three xray say again."

At 1037:37, the controller informed the pilot that he was 6 miles from Napps (the final approach fix). Also, the controller instructed the pilot to turn left to a heading of 105 degrees, to maintain 2,000 feet until established on the localizer, and informed the pilot that he was cleared for the ILS approach.

The pilot responded at 1037:44 and said "left one zero five maintain two." No further transmissions were recorded from the pilot.

A review of recorded radar track data from ARTCC revealed that the airplane continued descending while flying in an easterly direction toward Santa Barbara. The airplane was at 1,800 feet approximately 5.5 miles west of the Napps intersection.

At 1042:09, the airplane was at 1,500 feet when it was approximately 1 mile west of Napps. (According to the runway 07 instrument approach procedures chart, when established on the ILS glide slope, airplanes should cross Napps at 1,774 feet msl.)

Seconds later, the airplane reversed its direction of flight. During the next 1/2 minute it proceeded in westerly and then northerly directions away from the airport. Controllers observed the course deviation. At 1042:49, an audible low altitude alert (alarm) sounded in the control room.

The radar controller subsequently reported to the National Transportation Safety Board that he observed the airplane proceeding away from the airport and rapidly losing altitude. No safety advisory was issued. Radar contact was lost as the airplane descended through 1,100 feet on a northeasterly heading.

The airplane crashed into the Pacific Ocean within an estimated 1 to 2 miles from where an eyewitness was located. The witness reported that he observed the airplane in a steep bank (over 60 degrees) rapidly descending in a westerly direction, and also heard a loud engine noise. The witness further stated that the airplane's right wing and nose appeared to contact the water at the same time.

A U.S. Coast Guard vessel responded to the crash site area as pointed out by the witness. The Coast Guard reported observing evidence of an oil and fuel slick and a steady stream of bubbles southeast of the El Capitan State Beach. On June 12, 1996, the main wreckage from the accident airplane was found near the area.

PERSONNEL INFORMATION

Two instrument rated private pilots were found in the airplane wreckage. Their respective seat positions could not be ascertained nor determined which of the pilots was flying at the time of the accident. In this report, the pilots are referred to as the first pilot and the second pilot without inference to their respective piloting duties. The deceased pilots owned and operated the airplane along with another partner.

The partner reported that he was familiar with the sound of the pilots' voices, and he listened to the recorded radio transmissions made during the accident flight. The partner stated that the second pilot had made the radio transmissions, and he opined that the first pilot was therefore likely handling the flight controls from the left seat position.

First Pilot, Flight Experience and Currency

Between May 26 and 27, 1996, the first pilot was observed flying the airplane with his wife. The line service manager at the Modesto airport reported that the pilot purchased 31.9 gallons of 100LL fuel which completely filled the airplane's tanks. The pilot then flew the airplane for 1.5 hours and terminated the flight with a landing at Santa Barbara. These flights were the last ones recorded in the pilot's personal flight record logbook.

According to his logbook, he successfully completed a biennial flight review in January, 1994. The pilot's last instrument competency check was completed in May, 1995. Within 6 months of the accident date, the pilot's logbook recorded 2.5 hours of instrument flight time which included 1 instrument approach. No hood time or synthetic trainer time was recorded.

Second Pilot, Flight Experience and Currency

On June 6, 1996, the second pilot was observed flying the airplane during a local area daytime sightseeing flight under VFR conditions. The pilot flew from Santa Barbara to Santa Ynez. The partner estimated that the flight duration was between 1 and 2 hours. The pilot had planned to fly the airplane back to its Santa Barbara home base, but an overcast sky condition existed so he left the airplane at Santa Ynez for the night.

The pilot's personal flight record logbook was also reviewed. It covered the time period starting in August, 1993. The pilot listed three flights in the logbook. The last flight was listed as a biennial flight review, and that occurred in the accident airplane in August, 1994. The pilot listed his total flight time as 2,651.2 hours.

Airplane utilization records were reviewed for the period between November, 1995, and May, 1996. No evidence was found indicating the second pilot had flown the airplane during this period. The partner reported that during the past 2 years, the pilot had not flown any other

airplane. No evidence was found of the pilot having completed an instrument competency flight check within 2 years of the accident.

In a May, 1995, insurance application form, the pilot reported that he had flown PA-32 airplanes for 607 hours. Also, he had flown 22 hours during the preceding year.

AIRPLANE INFORMATION

The airplane was equipped with dual flight controls which allowed for piloting from either of the front seats. One attitude gyro (artificial horizon) was installed on the left side of the instrument panel. The maintenance record review indicated that on December 17, 1992, an overhauled attitude gyro was installed to replace the airplane's defective gyro. Neither it nor the navigation radios were recovered.

The impact damaged instrument panel was found partially fragmented. According to the partner, the airplane was equipped with an automatic direction finder (ADF) which did not work, a loran, a radio altimeter, and a 3-axis (Century III) autopilot, which worked "OK."

Based upon a review of the airplane's log books, the last transponder, altimeter, and pitot-static system checks were accomplished on May 15, 1994. (The FAA requires that these aircraft equipment and systems are functioning properly before flight into instrument meteorological conditions. The checks are required at time intervals not exceeding 2 years.)

METEOROLOGICAL INFORMATION

Throughout the morning of June 6, a marine layer of stratus clouds covered the Santa Barbara area. At 0351, Santa Barbara reported the cloud base was 200 feet above ground level (agl) and the visibility was 0.75 miles in fog. At 0454, the bases were 600 feet agl and the visibility was 1.5 miles in fog. Between 0647 and 1159, the overcast sky condition continued with a cloud base of 700 feet agl, and the visibility was between 4 and 5 miles in fog.

An eyewitness, who estimated that he was about 1 mile from the crash site, reported that his vision was restricted to 2 miles in fog. The wind was calm.

AIDS TO NAVIGATION

According to the FAA, all electronic aids to navigation pertinent to the airplane's route of flight and instrument approach to Santa Barbara were functioning normally at the time of the accident.

WRECKAGE AND IMPACT INFORMATION

The fragmented main wreckage was located approximately 7.7 nm and 257 degrees (magnetic) from the airport at the following coordinates: 34 degrees, 25.767 minutes north latitude, by 119 degrees, 59.700 minutes west longitude. The airplane was about 160 feet below sea level in a debris field about 35 feet wide by 75 feet long. The debris field was principally oriented over an east to west track, approximately parallel to the shoreline. Recovery personnel reported that during their search underwater visibility was generally 2 feet.

The accident site's location, in reference to the 075 degree ILS final approach course to runway 07, was north of the localizer's centerline and between the Napps intersection (final approach fix) and the Habut intersection (approach fix). Specifically, the site was about 1.8 nm and 264 degrees west of Napps, and 4.7 nm and 070 degrees east of Habut.

The recovered wreckage consisted of both propeller blades, the engine, the cockpit and

portions of the instruments, the cabin floor, and the empennage. The components were found separated from each other. The wings, including the flaps and ailerons, and the cabin interior including the six seats, were not found. There was no evidence of fire.

MEDICAL AND PATHOLOGICAL INFORMATION

On June 13, 1996, autopsies were performed by the Santa Barbara County Coroner's Office, Santa Barbara, California. The autopsies were incomplete due to the impact trauma and effects related to the water submersion.

Toxicology tests were performed on both pilots by the FAA's Toxicology and Accident Research Laboratory. The laboratory's manager verbally informed the Safety Board that specimens from both pilots exhibited evidence of putrefaction, although at different levels. Specimens from the first pilot exhibited chemical, color, and odor characteristics which manifest clear signs of putrefaction. No ethanol or other drugs were found. Specimens from the second pilot, which the toxicology report labeled as not putrefied, only exhibited chemical level changes which were indicative of putrefaction. No physical level changes were observed. Various levels of ethanol and methanol were found. The laboratory manager further stated that the second pilot's specimens were subjected to conditions conducive to postmortem alcohol formation. He concluded that the alcohol detected in the second pilot may have been from postmortem alcohol formation rather than ingestion.

TESTS AND RESEARCH

During the wreckage examination, the propeller blades were observed torsionally twisted, and the blades' tips were found bent into an "S" shape. Also, leading edge nicks and chordwise scratches were present on both of the blades. A 1-inch deep gouge was observed in the leading edge of one blade.

The engine's crankshaft was rotated by hand through 360 degrees, and the intact aft mounted vacuum pump accessory drive gear was observed to rotate in a corresponding manner. Compression within cylinders was detected in the impact damaged engine. The oil dipstick was found seated. The fuel filter was found clear. Several drops of fuel were observed in the fuel drain bowl and in its fuel inlet line. The fuel flow divider was found clear and the fuel pump drive gear was found intact. No foreign metal material was observed in the oil filter element. The oil suction screen was found clear. The Lycoming engine participant verbally reported finding no evidence of any preexisting mechanical failures or malfunctions.

The airplane's rudder, stabilator, and antiservo tab cables were found attached to their respective control surface fittings. The left side of the stabilator was found impact damaged and intact. The stabilator's right side was observed crushed in an aft direction throughout its entire span. Also, it was buckled in a 45-degree diagonal direction from the inboard leading edge to the outboard trailing edge.

The vertical portions of the hand grips from both the left and right side control yokes were found broken.

The fuel valve and selector screen were found devoid of foreign material. Circumferential score marks were observed on the directional gyro rotor. Corresponding marks were observed on the inside of the rotor housing. Only the face plate from the attitude indicator was located. The vacuum pump rotor, vanes, and drive gear were found intact.

ADDITIONAL INFORMATION

The FAA 's requirements for instrument flight currency are published at 14 CFR Part 61.57(e). In pertinent summary, these regulations state that no person may act as pilot-in-command of an airplane under IFR unless, within the preceding 6 calendar months, that person has (A) logged at least 6 hours of instrument time including at least 6 instrument approaches under actual or simulated instrument conditions, or (B) passed an instrument competency test.

All recovered airplane wreckage was released to the owners' assigned insurance adjuster on June 20, 1996. No parts or records were retained.

Pilot Information

Certificate:	Private	Age:	57, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	06/06/1996
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	559 hours (Total, all aircraft), 168 hours (Total, this make and model), 493 hours (Pilot In Command, all aircraft), 11 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N4303X
Model/Series:	PA-32R-300 PA-32R-300	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	32R-7680008
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	06/16/1995, Annual	Certified Max Gross Wt.:	3600 lbs
Time Since Last Inspection:	63 Hours	Engines:	1 Reciprocating
Airframe Total Time:	4809 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	IO-540-K1A5D
Registered Owner:	CONDOR AIR, LTD.	Rated Power:	300 hp
Operator:	E.MADSON, L.COLVIN, C.VOORHIS	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	SBA, 10 ft msl	Distance from Accident Site:	8 Nautical Miles
Observation Time:	1051 PDT	Direction from Accident Site:	77°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	0 Miles
Lowest Ceiling:	Overcast / 700 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	130°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	17° C / 15° C
Precipitation and Obscuration:			
Departure Point:	SANTA YNEZ, CA (IZA)	Type of Flight Plan Filed:	IFR
Destination:	(SBA)	Type of Clearance:	IFR
Departure Time:	1030 PDT	Type of Airspace:	Class D

Airport Information

Airport:	SANTA BARBARA MUNICIPAL (SBA)	Runway Surface Type:	Asphalt
Airport Elevation:	10 ft	Runway Surface Condition:	Dry
Runway Used:	7	IFR Approach:	ILS
Runway Length/Width:	6052 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	2 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	WAYNE POLLACK	Report Date:	05/23/1997
Additional Participating Persons:			
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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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](#).