



National Transportation Safety Board Aviation Accident Final Report

Location:	CLEAR LAKE RES, CA	Accident Number:	LAX94LA003
Date & Time:	10/01/1993, 1015 PDT	Registration:	N8397S
Aircraft:	CESSNA 182H	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Fatal, 1 None

Flight Conducted Under: Part 91: General Aviation - Personal

Analysis

THE PILOT (PIC) REPORTED THAT HE & ANOTHER PILOT (PASSENGER) FLEW TO A FRESH WATER RESERVOIR. HE SAID THAT EN ROUTE, THEY 'TOOK TURNS DOING WING OVERS AND TIGHT TURNS.' HE SAID THEY DECIDED TO MAKE A 360 DEGREE TURN OVER THE WATER, THEN FLY BACK TO THE DEPARTURE AIRPORT. THE PIC INDICATED THAT WHILE TURNING OVER GLASSY WATER, THE WATER, SUN, HAZE & COLOR OF THE BACKGROUND TERRAIN RESULTED IN AN OPTICAL ILLUSION. HE SAID HE LOST REFERENCE TO THE HORIZON, AND THE AIRPLANE COLLIDED WITH THE WATER ABOUT HALF WAY THROUGH THE TURN. THE PILOT SURVIVED THE ACCIDENT. HE EGRESSED FROM THE AIRPLANE AS IT WAS SINKING, BUT WAS UNABLE TO RESCUE THE OTHER OCCUPANT. NO MECHANICAL PROBLEM WITH THE AIRPLANE WAS REPORTED.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: FAILURE OF THE PILOT TO MAINTAIN ALTITUDE, WHILE PERFORMING A LOW-ALTITUDE MANEUVER (TURN) OVER WATER. FACTORS RELATED TO THE ACCIDENT WERE: SUN GLARE, HAZE, GLASSY CONDITION OF THE WATER, AND THE LACK OF VISUAL CUES (VISUAL PERCEPTION) FOR THE PILOT TO JUDGE ALTITUDE AND KEEP REFERENCE TO THE HORIZON.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: MANEUVERING

Findings

1. MANEUVER - INITIATED - PILOT IN COMMAND
2. (F) LIGHT CONDITION - SUNGLARE
3. (F) WEATHER CONDITION - HAZE/SMOKE
4. (F) TERRAIN CONDITION - WATER, GLASSY
5. (C) ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND
6. (F) VISUAL/AURAL PERCEPTION - PILOT IN COMMAND

Factual Information

On October 1, 1993, at 1015 Pacific daylight time, a Cessna 182H, N8397S, operated by the pilot, collided into the Clear Lake (fresh water) Reservoir and sank. The accident site was in northern California about 35 nautical miles east-southeast of the Klamath Falls International Airport, Oregon. The airplane was substantially damaged and the private pilot was not injured. The passenger, a retired airline captain, was fatally injured. The flight originated from Klamath Falls at 0950.

The pilot reported that visual meteorological conditions prevailed during the personal flight, and he did not file a flight plan. After taking off, he proceeded to fly in the direction of the Clear Lake Reservoir.

In the pilot's completed "Aircraft Accident Report," NTSB Form 6120.1, he wrote that while en route, "...we both took turns doing wing overs and tight turns." Upon arriving over the lake, the pilot commenced a left turn. The pilot explained the mishap in the following manner: "Half way across the island, we decided to make a 360-degree turn to the left over water, and then go home. We were half through the turn when there was an optical illusion with no horizon and flew into the water..."

The National Transportation Safety Board interviewed the pilot on October 2, 1993. The pilot reported that when the accident occurred he had been flying the airplane. The pilot stated that during the last turn he had lost his reference, and then the airplane contacted the water and sank. No mechanical problems were experienced during the flight.

Pilot Information

Certificate:	Private	Age:	70, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	07/09/1993
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	2500 hours (Total, all aircraft), 300 hours (Total, this make and model), 2350 hours (Pilot In Command, all aircraft), 54 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N8397S
Model/Series:	182H 182H	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	18256497
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	04/01/1993, Annual	Certified Max Gross Wt.:	2800 lbs
Time Since Last Inspection:	67 Hours	Engines:	1 Reciprocating
Airframe Total Time:	3186 Hours	Engine Manufacturer:	CONTINENTAL
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-470-R
Registered Owner:	N & H DREW; C & D MCGEARY	Rated Power:	230 hp
Operator:	CECIL DREW	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	30 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	Calm /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	16° C
Precipitation and Obscuration:			
Departure Point:	KLAMATH FALLS, OR (LMT)	Type of Flight Plan Filed:	None
Destination:	(LMT)	Type of Clearance:	None
Departure Time:	0950 PDT	Type of Airspace:	Class G

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC): WAYNE POLLACK, **Report Date:** 09/20/1994

Additional Participating Persons: TERRY L VAN NATTA; 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 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](#).