



Aviation Investigation Final Report

Location:	New Orleans, Louisiana	Accident Number:	CEN16LA338
Date & Time:	August 27, 2016, 20:15 Local	Registration:	N984RA
Aircraft:	Cessna 172	Aircraft Damage:	Substantial
Defining Event:	Controlled flight into terr/obj (CFIT)	Injuries:	2 Fatal, 1 Minor
Flight Conducted Under:	Part 91: General aviation - Other work use		

Analysis

Shortly after sunset, the pilot with two passengers departed on a local sightseeing flight of the city. The flight flew around the city, then proceeded back to the airport after civil twilight. The final portion of the flight and the landing approach were conducted over a lake. A review of radar's last return revealed the airplane about 0.6 miles from the airport at an altitude of 100 ft agl. The surviving passenger reported everything appeared normal during the flight, and as they neared the airport, it started to rain, and visibility was poor. The pilot pointed out 4 four red lights ahead of the airplane and stated to the passengers that was the airport. The passenger added that she could see out the side window and the airplane was about 4-6 ft above the surface of the lake. Shortly thereafter, the airplane impacted the lake.

Postaccident examination of the airplane did not reveal any anomalies that would have precluded normal operation. A review of weather information noted the presence of thunderstorm activity and isolated rain showers in the area at the time of the accident.

The pilot's toxicology report was positive for ethanol and clomipramine. Due to a delay in the recovery, it is likely that most, if not all, of the ethanol was from postmortem production. Clomipramine is a tricyclic antidepressant used to treat symptoms of obsessive-compulsive disorder. Clomipramine is not considered impairing. Additionally, the pilot's actions and communication with the passengers also indicate that the pilot did not experience a seizure or incapacitation, so a reaction to his medication was not likely.

With reduced visibility due to rain and night conditions, it is unlikely the pilot could see the water. The four red lights, consistent with the runway's precision approach path indicator (PAPI) that the pilot pointed out to the passengers, reflected the airplane's low approach path. The accident is consistent with the pilot continuing the descent, while already below a normal approach path to the airport, which resulted in the controlled flight into terrain.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper decision to continue a descent during a night visual approach a for landing which resulted in controlled flight into terrain. Contributing to the accident was the reduced visibility and pilot's disregard of the PAPI indications that the airplane's approach path was excessively low.

Findings

Personnel issues	Lack of action - Pilot
Environmental issues	Rain - Effect on personnel
Personnel issues	Use of medication/drugs - Pilot

Factual Information

History of Flight

Approach	Controlled flight into terr/obj (CFIT) (Defining event)
----------	---

On August 27, 2016, about 2015 central daylight time, a Cessna 172R airplane, N984RA, impacted the waters Lake Pontchartrain during a visual approach to the Lakefront Airport (NEW), New Orleans, Louisiana. The pilot and one passenger were fatally injured; a second passenger received minor injuries. The airplane was substantially damaged. The airplane was registered to Christiansen Aviation, Inc., and operated by Flight Academy of New Orleans, doing business as New Orleans Aerial Air Tours, under the provisions of Title 14 *Code of Federal Regulations* Part 91 as a local sightseeing tour flight. Night visual meteorological conditions prevailed, and the airplane was not on a flight plan, which departed NEW at 1930.

According to the operator, one of the passengers purchased tickets for a 45-minute tour flight for two people, which was scheduled for a 1930 departure.

The surviving passenger reported that she and the other passenger were in the rear seats, with pilot in the left front seat, and that everything on the flight appeared normal. At the end of the flight as they neared the airport, it started to rain. She could not see much out of the windshield; however, the pilot pointed out four red lights ahead of the airplane and stated that that was the airport. She added that the pilot was "straining" to look above the dash and outside the windshield. Looking out the side window, she could see water below and stated that the airplane was "4 to 6 feet" above the water.

Shortly thereafter, the airplane impacted water about 1/2 mile from runway 09. The passenger stated in the post-crash interview, that it was still raining when she got to the water's surface. She added that the airplane's engine was running during the time leading up to the impact with water.

A review of radar data revealed the airplane's flight path above and around the city. A review of the airplane's radar track as it approached the airport, showed the airplane was at 900 ft above ground level (agl) about 3.6 miles from the runway. The airplane continued its descent as it approached the airport. The last radar return showed the airplane about 0.6 nautical mile from the airport at an altitude of 100 ft agl. An overlay of the airplane's radar track correlated with weather data revealed that the airplane entered an area of rain showers, as it approached the airport.

Pilot Information

Certificate:	Commercial	Age:	58
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-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:	Class 1 With waivers/limitations	Last FAA Medical Exam:	May 11, 2016
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 9828 hours (Total, all aircraft), 9702 hours (Pilot In Command, all aircraft)		

The pilot held a commercial pilot certificate with ratings for airplane single and multi-engine land and instrument airplane. He also held a private pilot certificate with a rating for airplane single-engine sea. He held a first-class Federal Aviation Administration (FAA) medical certificate that was issued on May 11, 2016, with the limitation: must wear corrective lenses. At the time of the exam, the pilot reported 9,941 total flight hours with 170 hours in the previous six months.

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N984RA
Model/Series:	172 R	Aircraft Category:	Airplane
Year of Manufacture:	1997	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	17280094
Landing Gear Type:	Tricycle	Seats:	
Date/Type of Last Inspection:	March 15, 2016 100 hour	Certified Max Gross Wt.:	2299 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	6153.5 Hrs at time of accident	Engine Manufacturer:	LYCOMING
ELT:	C91A installed	Engine Model/Series:	IO-360
Registered Owner:		Rated Power:	180 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:	New Orleans Aerial Air Tours	Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KNEW	Distance from Accident Site:	
Observation Time:	20:23 Local	Direction from Accident Site:	
Lowest Cloud Condition:	3600 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 3600 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	150°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.96 inches Hg	Temperature/Dew Point:	28°C / 24°C
Precipitation and Obscuration:	In the vicinity - Thunderstorm - Rain		
Departure Point:	New Orleans, LA (KNEW)	Type of Flight Plan Filed:	None
Destination:	New Orleans, LA (KNEW)	Type of Clearance:	VFR
Departure Time:	Type of Airspace:		

At 2000, the automated weather observation station (AWOS) located at NEW recorded wind from 120° at 5 knots, 5 miles visibility in light rain, scattered clouds at 2,200 ft, broken clouds at 3,800 ft, an overcast sky at 7,500 ft, temperature of 82°F, dew point 77°F, and an altimeter setting of 29.96 inches of mercury. Distant lightning was noted to the west and northwest.

At 2023, the NEW AWOS recorded wind from 150° at 8 knots, 10 miles visibility, broken clouds at 2,200 ft, an overcast sky at 6,500 ft, temperature of 82°F, dew point 75°F, and an altimeter setting of 29.97 inches of mercury. Lightning was noted to the west and northwest.

New Orleans International Airport (MSY), located about 12 miles west of NEW, recorded the following weather conditions at 1953 CDT: wind calm, visibility 8 miles in thunderstorms and light rain, a few cumulonimbus clouds at 3,300 ft agl, scattered clouds at 7,500 ft, scattered clouds at 15,000 ft, ceiling broken at 25,000 ft, temperature 80°F, dew point 75°F, and an altimeter setting of 29.96 inches of mercury.

Observation remarks included that rain ended at 1917 and began again at 1929; thunderstorm ended at 1921 and began again at 1941; frequent lightning in-cloud and cloud-to-cloud north; occasional lightning in-cloud and cloud-to-cloud distant west through northwest; thunderstorm north moving west; cumulonimbus cloud distant west through northwest.

Astronomical Conditions

According to information from the United States Naval Observatory, at the time of the accident, both the sun and the moon were more than 15° below the horizon.

Sunset occurred at 1928 and the end of civil twilight occurred at 1952.

Airport Information

Airport:	Lakefront KNEW	Runway Surface Type:	Asphalt
Airport Elevation:	7 ft msl	Runway Surface Condition:	Unknown
Runway Used:	09	IFR Approach:	None
Runway Length/Width:	3114 ft / 75 ft	VFR Approach/Landing:	Straight-in

The Lakefront Airport (NEW) is a publicly owned, towered airport, located 4 miles north of New Orleans, Louisiana. NEW has three asphalt runways: 18R/36L, 6,879 ft by 150 ft, and 18L/36R, 3,697 ft by 75 ft, and 9/27, 3,114 ft by 75 ft. The airport is at an elevation of 7.3 ft. mean sea level.

A review of the FAA's Chart Supplement for NEW noted that runway 09 was equipped with a 4-light precision approach path indicator (PAPI) system, which provides visual glideslope guidance to the runway. Four white lights indicate an excessively high approach path, while four red lights indicate an excessively low approach path. Two white and two red lights indicate a normal approach path.

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	1 Fatal, 1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal, 1 Minor	Latitude, Longitude:	30.061666,-90.027496(est)

The airplane impacted the waters of Lake Pontchartrain short of runway 09 at NEW. The airplane and occupants were recovered about 3 days later and transported to the shore by barge. The airplane recovery crew performed a flight control continuity check with no anomalies noted. The airplane was disassembled and transported to a secure facility for further examination. An examination was conducted on September 15, 2016, by the National Transportation Safety Board, Federal Aviation Administration, and technical representatives from the engine and airframe manufacturers.

The airplane's forward fuselage and left wing exhibited impact damage. The nose landing gear was pushed aft. Engine damage due to water submersion prevented functional testing of the engine and components; however, the examination did not reveal any abnormalities with the engine or airframe that would have precluded normal operation.

Medical and Pathological Information

The New Orleans Forensic Center, Orleans Parish Coroner's Office, New Orleans, Louisiana conducted an autopsy on the pilot. The cause of death was determined to be, "asphyxia due to drowning."

The FAA Bioaeronautical Sciences Research Laboratory, Oklahoma City, Oklahoma, conducted toxicological testing on the pilot. The specimens were not tested for carbon monoxide and cyanide. The test detected ethanol at 0.103 mg/dL in liver and 0.087 mg/dL in muscle. N-propanol, a product of postmortem bacterial action, was also found in liver and muscle. In addition, clomipramine and its metabolite n-desmethyldomipramine were identified in liver and muscle.

Ethanol is the intoxicant commonly found in beer, wine, and liquor. After ingestion, at low doses, it impairs judgment, psychomotor functioning, and vigilance; at higher doses, it can cause coma and death. Ethanol may also be produced in body tissues by microbial activity after death.

Clomipramine is a tricyclic antidepressant used to treat symptoms of obsessive-compulsive disorder (OCD). It does not carry a warning about operating vehicle or machinery and is not considered directly impairing.

Administrative Information

Investigator In Charge (IIC):	Hatch, Craig
Additional Participating Persons:	Jason Adame; FAA FSDO; Baton Rouge, LA John Butler; Lycoming Aircraft Engines; Williamsport, PA Henry Soderlund; Textron Aviation; Wichita, KS
Original Publish Date:	July 5, 2018
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=93910

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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](#).