



# National Transportation Safety Board

## Aviation Accident Final Report

Location:	Port Mansfield, TX	Accident Number:	CEN10FA070
Date & Time:	12/10/2009, 2221 CST	Registration:	N7781Y
Aircraft:	PIPER PA-30	Aircraft Damage:	Destroyed
Defining Event:	Controlled flight into terr/obj (CFIT)	Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

### Analysis

The commercial pilot and his passenger departed on a 4-hour visual flight rules (VFR) cross-country flight that had them arriving at an oceanside airport at night. Since the destination airport did not have any weather reporting capability, the pilot had to rely on weather from an airport 23 miles away and further inland. The weather conditions deteriorated while en route (ceiling 1,000 to 1,200 foot overcast, visibility 9-10 miles, and a closing temperature/dewpoint spread) so the pilot filed an instrument-flight-rules flight plan with air traffic control (ATC). As he approached his destination, the pilot asked ATC if he could descend to 2,000 feet and "take a look." The controller approved the descent at the pilot's discretion. ATC later cleared the pilot for a visual approach since no instrument approach procedures were available for the airport. The pilot was instructed to descend to 1,600 feet and to report when the airport was in sight. The pilot acknowledged that he had the airport in sight and there were no further communications with him. Radar data revealed the airplane flew southeast toward the airport at an altitude of 800 feet, then flew beyond the airport before it made a left turn toward the shoreline. The last recorded altitude was 600 feet. A witness who lived near the airport heard the airplane flying low over his home and went outside, but he was unable to see the airplane due to heavy haze and reduced visibility. He said the airplane noise traveled toward the shoreline and disappeared. The airplane came to rest inverted in approximately 7-10 feet of water about 1.6 miles east of the airport. Damage to the airplane was consistent with a shallow impact angle with the water, the subsequent recovery operations, and salt water corrosion. All four blades (two on each engine) exhibited symmetrical aft bending and twisting toward low pitch (not feathered), consistent with water impact at low or moderate power. The landing gear was extended and the flaps were fully retracted. Examination of the airplane, both engines, and propellers revealed no premishap mechanical deficiencies.

### 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 clearance with the water while on approach (VFR) to land.

#### Findings

Personnel issues	Incorrect action performance - Pilot (Cause)
Environmental issues	Low ceiling - Response/compensation (Factor)
	Dark - Decision related to condition (Factor)

### Factual Information

#### HISTORY OF FLIGHT

On December 10, 2009, approximately 2221 Central Standard Time, N7881Y, a Piper PA-30 multi-engine airplane, was destroyed when it collided with the water in Laguna Madre about 1.6 miles east of the Charles R. Johnson Airport (T05), Port Mansfield, Texas. The commercial rated pilot and the passenger were fatally injured. The airplane was registered to and operated by the pilot. The flight originated from a private airport in Sun Ray, Texas, about 1815, and was destined for Port Mansfield. No flight plan was originally filed; however, the pilot filed an instrument flight rules flight plan while en route. Night instrument meteorological conditions prevailed for the personal flight conducted under Title 14 Code of Federal Regulations Part 91.

A review of air traffic control communications revealed that the pilot was talking to Valley Approach control. When the pilot initially checked on, he was at an altitude of 6,500 feet and descending to 6,000 feet. A controller informed the pilot that there was no weather information available at Port Mansfield, but the airport in Harlingen (23 miles southwest of Port Mansfield) was reporting a ceiling of 1,000 foot overcast, visibility 9 miles, and an altimeter setting of 30.11 inches of Mercury. The controller asked the pilot what "approach" he wanted to attempt, and the pilot responded that there were no instrument approaches available at Port Mansfield. The controller concurred and reiterated again that no weather information was

available for Port Mansfield Airport. The pilot stated that he had obtained weather information prior to the 4-hour flight, and the forecasted ceilings were 2,500 feet. The pilot then asked to descend to 2,000 feet to "take a look." The controller approved the descent at "pilot's discretion."

At times, some of the communications were intermittent between the pilot and air traffic control. The pilot was able to hear the controller, but the controller was not able to clearly hear the pilot. The controller asked another airplane to relay contact information to the pilot so he could cancel IFR services once on the ground. The pilot was able to confirm that he received that information in a separate transmission. The controller then advised him to descend and maintain 1,600 feet and report the airport in sight.

As the airplane approached Port Mansfield, the controller informed the pilot when the airport was 9, 8 and 6 miles at his 12 o'clock position. A partial radio transmission was received from the pilot, so the controller had him confirm that he did have the airport in sight by asking him to "Squawk IDENT" on his transponder. The controller informed the pilot that the "IDENT was observed" and cleared him for the visual approach and to cancel IFR on the ground via telephone. There were no further communications from the pilot.

A review of radar data revealed the airplane was tracking on a south-southeasterly heading toward Port Mansfield. At 2220, the airplane flew west of the airport at an approximate altitude of 800 feet. Less than a minute later, when the airplane was southwest of the airport, it entered a left hand turn to the east-southeast before the data ended at 2221. At that time, the airplane was at an altitude of 600 feet and located south-southeast of the airport near the shoreline.

There were no records that the pilot had obtained a weather briefing prior to departure from an Automated Flight Service Station or either of the two Direct User Access Terminal (DUAT) weather services.

A witness was sleeping in his home located near the airport when the sound of the airplane woke him up out of a sound sleep. He figured the airplane was "in trouble" so he got dressed and went outside. The witness could not see the airplane but heard it near the "edge of the water" and thought the pilot was "looking for the runway." Shortly after, the sound of the airplane went away and he figured that it had landed and he went back to bed. The witness said that the engines "sounded fine...not missing." He described the weather at the time as a "heavy haze" and estimated the visibility as 300-350 yards.

According to the Line Service Manager at Tradewind Airport, Amarillo, Texas, the pilot purchased 30.8 gallons of fuel on the day of the accident, which topped off the airplane's six fuel tanks for a total of 120 gallons. The line manager also noted that the pilot had a hard time starting the engines and thought that maybe it was due to the cold ambient temperatures that existed at the airport.

#### PILOT INFORMATION

The pilot held a commercial pilot certificate for airplane single and multi-engine land, and instrument airplane. He also held a certified flight instructor rating for airplane single-engine land, multi-engine land and instrument airplane. His last Federal Aviation Administration (FAA) First Class medical and Student Pilot Certificate was issued on July 10, 2008. At that time, he reported a total of "0" flight hours. This was the pilot's first application for a flight medical and he had not yet started his training.

Further review of the pilot's FAA Airmen records revealed that he earned the above listed flight certificates/ratings between September 2008 and March 2009. His last rating was earned on March 18, 2009. At that time, the pilot reported at total of 313.9 hours of flight time, of which, 68.6 hours (44 hours in a training device) were in instrument conditions and 63.2 hours were at night.

The pilot's personal logbook was never located.

#### METEOROLOGICAL INFORMATION

Weather reported at Valley International Airport (HRL), Harlingen Airport, Harlingen, Texas, at 2152, was reported as winds from 360 degrees at 8 knots, visibility 9 miles, 1,000 foot overcast, temperature 14 degrees Celsius, dewpoint 12 degrees Celsius, and a barometric pressure setting of 30.11 inches of Mercury.

At 2252, the winds were reported from 010 degrees at 11 knots, visibility 10 miles, ceiling 1,200 feet overcast, temperature 14 degrees Celsius, dewpoint 12 degrees Celsius, and a barometric pressure setting of 30.11 inches of Mercury.

A commercial fisherman was working off shore approximately 10 miles south of the accident site. He reported the weather as a half-mile visibility and winds out of the north at 20 miles per hour with gusts.

#### AIRPORT INFORMATION

The Charles R. Johnson Airport is an uncontrolled and unattended airport that is open to the public. It is managed by the Port Mansfield Superintendent's office. The airport does not maintain an aviation weather observation system (AWOS).

Runway 12/30 is a 3,200-foot-long and 50-foot-wide asphalt runway equipped with medium intensity runway edge lights. The wind indicators and runway lights are pre-set to a low-intensity level from dusk until dawn, and can be increased to medium intensity via activation of the pilot-controlled lighting feature over the common traffic advisory frequency (CTAF).

The runway lights and airport beacon are set to a timer and automatically turn on as programmed. A post-accident functional test of the airport beacon, wind indicator lights, and runway lighting system revealed that all systems operated normally. Communications made over the CTAF and activation of the pilot-controlled lighting was not recorded.



Communications made over the CTR and activation of the pilot-controlled lighting was not recorded.

## WRECKAGE INFORMATION

According to rescue and recovery personnel, the airplane came to rest inverted in approximately 7-10 feet of water about 1.6 miles east of the airport. The nose of the airplane was pointed toward the shoreline. Both engines had separated from the airplane and were found within 300 feet of the main wreckage. Both tip tanks had also separated from the wings. The airplane was recovered and taken to a loading dock at the Port Mansfield marina.

The airplane was examined on December 13, 2009, under the supervision of the Investigator-in-Charge. All major components of the airplane were recovered, except for the left aileron and portions of the left and right wing. Damage to the airplane was consistent with a shallow impact angle with the water and the subsequent recovery operations. Control cable continuity was established for all flight control surfaces to the cockpit. The landing gear was in the extended position and the flaps were fully retracted. The left fuel control valve was found in the auxiliary position and the right fuel control valve was on the main tank.

The altimeter was located in the wreckage and did not exhibit impact damage. The altimeter setting in the Kollsman window was 30.11 inches of Mercury, which was consistent with the barometric pressure setting at the time of the accident.

Both propeller systems remained attached to their respective engine, and compression and valve train continuity was established for each engine by manual rotation of the propellers. All four magnetos (two on each engine) remained attached to the engine, but the housings were full of salt water. Each magneto was removed and placed on a test bench; however none were able to produce spark. Each magneto was disassembled and the internal components exhibited saltwater corrosion. Both vacuum pumps remained attached to their respective engine and did not exhibit impact damage; however, they both produced suction when manually rotated. The top and bottom spark plugs for each engine were removed and were also corroded.

The fuel manifold valves for each engine were intact and disassembled. Fuel was noted in the chambers and the diaphragms were unremarkable. The retention spring inside the right engine's fuel manifold valve was not installed.

Both propeller systems were disassembled and examined on December 17, 2009, under the supervision of the Safety Board. Each of the two-bladed propeller systems remained attached to their respective engine and all four blades exhibited symmetrical aft bending and twisting toward low pitch (not feathered). Damage to the blades was consistent with water impact at a low or moderate power; however, due to a lack of blade angle witness marks a more accurate power output could not be calculated.

No mechanical deficiencies were noted with the airframe, the engines or propeller system.

The aircraft, engine, and propeller maintenance logbooks were never located.

## MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was conducted on the pilot by Valley Forensics, P.L.L.C, McAllen, Texas, on December 14, 2009. The cause of death was determined to be drowning.

An autopsy was also conducted on the passenger by Valley Forensics, P.L.L.C, McAllen, Texas, on December 14, 2009. The cause of death was determined to be blunt force trauma to the chest.

Toxicological testing was conducted on both the pilot and the passenger by the FAA Toxicology Accident Research Laboratory, Oklahoma City, Oklahoma. The results were negative for each individual for all items tested.

## ADDITIONAL INFORMATION

It was initially reported that the international water channel (IWC) and cross channel that are located east of the airport were lighted and may have caused the pilot to become confused. Further examination of this concern revealed that the channels are not lighted and are marked with two opposing wood posts that have triangular boards attached to the top (red=left and green=right). Mariners navigating the channels at nights would have to use a light to assure their position between these markers as they move through the channel.

There is a range beacon (maintained by the United States Coast Guard) that has a red strobe affixed to the top located at the airport and on the shoreline just east of the airport. These beacons are used by mariners to identify when they are at the intersection of the IWC and cross channel.

There were also several private residences along the shoreline that have docks that extend several hundred feet over the water. These docks are lighted; however, a majority of these homes were not occupied (off season) at the time of the accident.

The airplane was released to Air Salvage of Dallas on April 8, 2010.

## History of Flight

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

## Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	39, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness

Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	Yes
Medical Certification:	Class 1 Without Waivers/Limitations	Last FAA Medical Exam:	07/10/2008
Occupational Pilot:	No	Last Flight Review or Equivalent:	03/18/2009
Flight Time:	314 hours (Total, all aircraft), 249 hours (Pilot In Command, all aircraft)		

## Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N7781Y
Model/Series:	PA-30	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	30-686
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	3725 lbs
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:	C91A installed, not activated	Engine Model/Series:	IO-320 SERIES
Registered Owner:	Harvey W. Kiniken, Jr	Rated Power:	150 hp
Operator:	Harvey W. Kiniken, Jr	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Night
Observation Facility, Elevation:	HRL, 36 ft msl	Distance from Accident Site:	23 Nautical Miles
Observation Time:	2152 CST	Direction from Accident Site:	210°
Lowest Cloud Condition:		Visibility	9 Miles
Lowest Ceiling:	Overcast / 1000 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.11 inches Hg	Temperature/Dew Point:	14° C / 12° C
Precipitation and Obscuration:			
Departure Point:	Borger, TX (BGR)	Type of Flight Plan Filed:	IFR
Destination:	Port Mansfield, TX (T05)	Type of Clearance:	VFR
Departure Time:	1819 CST	Type of Airspace:	

## Airport Information

Airport:	Port Mansfield (T05)	Runway Surface Type:	
Airport Elevation:	10 ft	Runway Surface Condition:	
Runway Used:	N/A	IFR Approach:	Visual
Runway Length/Width:		VFR Approach/Landing:	Full Stop

## Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal	Latitude, Longitude:	26.557778, -97.435833 (est)

## Administrative Information

Investigator In Charge (IIC):	Leah D Yeager	Report Date:	08/12/2010
Additional Participating Persons:	Robert O'Keefe; FAA/FSDO; San Antonio, TX Michael McLure; New Piper Aircraft Company; Duncanville, TX John Butler; Lycoming; Arlington, TX Tom McCreary; Hartzell Propeller Incorporated; Piqua, OH		
Publication Date:	08/12/2010		

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](#).