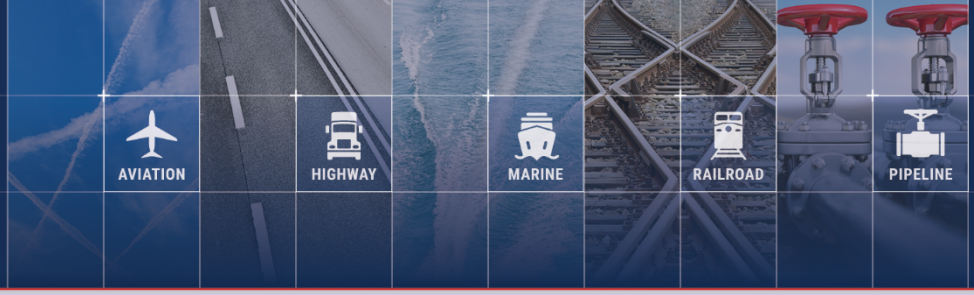

Aviation Investigation Final Report

Location:	Thonotosassa, Florida	**Accident Number:**	MIA04FA035
Date & Time:	December 18, 2003, 16:45 Local	**Registration:**	N603DK
Aircraft:	Cessna U206G	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

A witness stated that he was outside his home and noted the accident airplane when it approached to land on the lake as he had seen it do several times previously. On this occasion, the witness said that as he continued to watch the airplane throughout the approach and landing flare/touchdown, he noted that the airplane's landing gear was in the down position, extending below the floats. He further stated that as the floats contacted the water during the flare, the airplane immediately nose dived and flipped straight over, coming to rest inverted in the lake. Examination of the airplane and its systems did not reveal the existence of any preaccident anomalies with the airframe, flight controls, or engine.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to retract the landing gear prior to landing on the water, resulting in a loss of control, and the airplane nosing over.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
2. PROCEDURES/DIRECTIVES - NOT FOLLOWED - PILOT IN COMMAND
3. (C) GEAR RETRACTION - NOT PERFORMED - PILOT IN COMMAND

Occurrence #2: NOSE OVER
Phase of Operation: LANDING

Factual Information

HISTORY OF FLIGHT

On December 18, 2003, about 1645 eastern standard time, a Cessna U206G, equipped with floats, N603DK, registered to, and operated by a private individual, as a Title 14 CFR Part 91 personal flight, crashed while attempting to land on Lake Thonotosassa, Thonotosassa, Florida. Visual meteorological conditions prevailed, and no flight plan was filed. The private-rated pilot and one passenger received fatal injuries, and the airplane incurred substantial damage. The flight originated at Vandenberg Airport, Tampa, Florida, the same day, about 1635.

A witness stated that he was outside his home and saw the float plane flying over his neighbor's house, traveling in a southeastern direction, and descending to land into the wind on the surface of Lake Thonotosassa. He stated that he had seen the same float plane over the lake many times in the past, but on this occasion he noted that the landing gear was in the down position, extending below the floats as the airplane approached to land on the water. He said that when the airplane made contact with the water, it immediately nose dived and flipped straight over. The airplane then sank inverted, to the level of the pontoons, with the landing gear remaining extended above the pontoons.

PERSONNEL INFORMATION

Records obtained from the FAA showed that the pilot-in-command held an FAA private pilot certificate, with airplane single engine land and sea ratings, issued on June 12, 2002. He also held an FAA third class medical certificate, issued on June 09, 2003, with no stated limitations or restrictions. The pilot's personal flight log was recovered and the last flight entered in the log for a flight on December 09, 2003, at which time he had reported having accumulated 221 hours of flight experience.

AIRCRAFT INFORMATION

The accident airplane is a 1976 Cessna U206G floatplane, serial number U20603574. It had been given an annual inspection on July 16, 2003, at which time records showed that it had accumulated about 5851 flight hours on the airframe, with the recording tachometer showing an accumulation of 678 hours.

The airplane was equipped with a Teledyne Continental Motors IO-550-F, 300-horsepower engine, serial number was 284564-R. The engine had been rebuilt and zero timed on August 23, 1993. The airplane was also equipped with a McCauley 3-bladed constant speed propeller, serial number 930283, last overhauled on February 03, 2000. It was also equipped with EDO

amphibious floats, serial numbers 349 and 350, installed on February 25, 1994.

METEOROLOGICAL INFORMATION

Visual meteorological conditions prevailed at the time of the accident. The Tampa International Airport, Tampa, Florida, 1653, surface weather observation was, wind from 270 degrees at 8 knots, visibility 10 statute miles, few clouds at 25,000, temperature 59 degrees F, dew point temperature 46 degrees F, altimeter setting 30.14 inHg. Tampa, Florida is located 15 miles southwest of the accident site.

WRECKAGE AND IMPACT INFORMATION

The airplane came to rest inverted, and submerged in about 12 feet of water with the pontoons and the extended landing gear wheels visible at the surface of the water. The occupants were initially removed by emergency response personnel at the scene, and the airplane had remained submerged for several days until recovery could was affected. During recovery, the airplane was righted, towed to the shoreline and about 30 gallons of fuel and water was removed. The wings and floats were then detached and the airplane transported to a secure location to permit a detailed examination.

On January 5, 2004, the NTSB conducted a detailed examination of the airframe and engine. Examination of the airplane showed that the 3-bladed McCauley propeller was intact and had remained attached to the engine. The propeller spinner and backing plate had been damaged during recovery, but all portions of the airplane necessary to sustain flight was present. Flight control continuity was verified for roll, pitch and yaw. Both wings had incurred minor damage, and the leading edges had sustained little or no damage. The wing flaps appeared to be retracted, and when the flap actuator measurement was checked, it was noted to be about 4 degrees, consistent with the flaps being in the retracted position. The left wing had minor skin damage at the forward section of the wing tip. The right flap had minor deformation, and exhibited a cut as well as a downward bend at its inboard section. The elevator trim indicator was in the centered position and the trim was measured to be up about 5 degrees. The rudder had remained attached to the vertical fin and there was also damage to the top portion of the vertical stabilizer. The elevator had remained attached to the horizontal stabilizer.

The airplane's windshield had incurred damage, and the left pilot door as well as both cargo doors were attached and functional. The left front seat had been removed by recovery personnel, and the right front seat was in-place but its outboard aft roller assembly was partially separated from the seat rail. Both the left and right front seat belts remained attached to the structure and no shoulder harnesses were noted.

Examination of the cockpit revealed control settings and gauge readings to include the landing gear switch, which was set to the "Down/Land" position. The throttle was extended about 1 and 3/16 inches. The mixture control was extended about 1and 1/2 inches, and the propeller control was in the full forward position. The fuel selector handle depicted that the left tank was

selected. The master switch was in the "ON" position, with both the alternator and battery switches in the "ON" position. The flood light, strobes, taxi and landing lights were in the "OFF" position. The beacon was in the on position. The altimeter was full of water and displayed a -910 feet, with the Kollsman window set at 30.15 inHg. The vertical speed indicator showed -4000 feet per minute. The turn coordinator was level, and the ball moved within the race. The directional gyro indicated 150 degrees. Both fuel indicators showed empty. The vacuum read 0, and the ammeter needle was in the center. The cylinder head temperature indicator needle was below the yellow range, and the oil temperature was in the yellow range.

Both the forward and aft landing gear wheels on both floats had been extended. The landing gear mechanism on the floats were positioned between the down and up position locks. A visual landing gear indicator was observed in the left float. The water rudder handle was stowed next to the floor, consistent with water rudders in the up position. Both landing gear system hydraulic lines were intact. When power was applied and the electric hydraulic pump tested for both extension and retraction no anomalies were noted. The manual/backup landing gear pump had been in the "off" position, and when it was tested for both extension and retraction cycles, no anomalies were noted.

After recovery from the water the engine crankcase had been filled with engine oil for preservation. The engine nose cowling, top cowling, and bottom cowling, as well as the firewall, had sustained damage. The engine was intact and did not display internal or post-impact damage. There were no oil or fuel leaks and the cylinders, oil pump, oil sump, oil filter canister and air/oil separator were intact. The fuel manifold valve and the throttle body were intact. The fuel lines were undamaged and remained attached to the gascolator. The fuel pump was removed from the aircraft and it was verified to be functional. The alternator, magnetos, propeller governor, starter, and starter adapter did not display damage.

The oil in the crank case was drained to 12 quarts of oil, the spark plugs removed and cleaned, and the engine prepared for test. In addition, both magneto caps were removed and examined and no water was present. The magneto points also displayed no anomalies. The magnetos were dried using low pressure air, and when tested, sparks were observed on all terminals. After further preparation of the engine, an external fuel source was connected to the airplane's fuel pump and the system was primed with clean fuel. A battery was then attached to the airframe and engine starter, and a functional test of the engine successfully performed. The engine operated at 1100 RPM and for 5 minutes, and no anomalies were noted.

MEDICAL AND PATHOLOGICAL INFORMATION

Postmortem examination of the pilot and passenger was performed by a pathologist with the District 13 Medical Examiner's Office, Tampa, Florida. The cause of death was attributed to drowning and blunt impact to the head. No findings, which could be considered causal to the accident, were reported.

The FAA Toxicology Laboratory, Oklahoma City, Oklahoma, conducted toxicology studies on

specimens from the pilot. The specimens were tested for carbon monoxide, cyanide, ethanol, and drugs, all of which were negative.

ADDITIONAL INFORMATION

On January 5, 2004, the NTSB released the airplane wreckage to Mr. Huntington, owner, Quality Aircraft Salvage, Groveland, Florida.

Pilot Information

Certificate:	Private	**Age:**	38,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	**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--no waivers/lim.	**Last FAA Medical Exam:**	June 1, 2003
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	October 1, 2000
Flight Time:	221 hours (Total, all aircraft), 87 hours (Total, this make and model), 163 hours (Pilot In Command, all aircraft), 3 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N603DK
Model/Series:	U206G	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	U20603574
Landing Gear Type:	Float	**Seats:**	4
Date/Type of Last Inspection:	July 1, 2003 Annual	**Certified Max Gross Wt.:**	3500 lbs
Time Since Last Inspection:	8 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	5851 Hrs as of last inspection	**Engine Manufacturer:**	Teledyne Continental
ELT:	Installed, not activated	**Engine Model/Series:**	IO-550-F
Registered Owner:	On file	**Rated Power:**	300 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	TPA,8 ft msl	**Distance from Accident Site:**	15 Nautical Miles
Observation Time:	16:53 Local	**Direction from Accident Site:**	230°
Lowest Cloud Condition:	Few / 25000 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	8 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	270°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.13 inches Hg	**Temperature/Dew Point:**	15°C / 8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Tampa, FL (X16)	**Type of Flight Plan Filed:**	None
Destination:	Thonotosassa, FL	**Type of Clearance:**	Unknown
Departure Time:	16:35 Local	**Type of Airspace:**	Unknown

Airport Information

Airport:	Lake Thonotosassa	**Runway Surface Type:**	Water
Airport Elevation:	0 ft msl	**Runway Surface Condition:**	Water-calm
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Straight-in

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 Fatal	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Fatal	**Latitude, Longitude:**	28.033332,-82.316665

Administrative Information

Investigator In Charge (IIC):	Lovell, John
Additional Participating Persons:	Victor Roxas; FAA FSDO; Tampa, FL Tom J Teplik; Cessna Aircraft Company; Wichita, KS Al Butler; Teledyne Continental Motors; Mobile, AL
Original Publish Date:	October 27, 2005
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=58538