



Aviation Investigation Final Report

Location:	Panama City, Florida	Accident Number:	MIA08FA010
Date & Time:	November 1, 2007, 14:06 Local	Registration:	N4091H
Aircraft:	Mooney M20K	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Fatal, 1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The accident airplane had not flown for an undetermined period of time, and the pilot was planning to conduct a 30-minute local flight. The pilot's mechanic attempted to prepare the airplane for the flight, and while prepping the airplane he drained water from both fuel tanks for approximately 45 minutes. He started the engine and let it run for 15 minutes. During that time the pilot arrived at the airport, and the mechanic suggested to the pilot that he allow him to fully drain the fuel tanks prior to his flight. The pilot refused and he and the passenger boarded the airplane. The flight departed, and shortly after the pilot reported a loss of engine power and ditched in the Gulf of Mexico. Examination of the airplane revealed water contamination of the fuel. Review of the pilot's toxicology report revealed the use of controlled substances. Post mortem toxicology testing performed on the pilot was consistent with the regular use and very recent smoking of cocaine, likely within 1 hour of the accident. The pilot's medical certificate was expired at the time of the accident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate preflight inspection which resulted in a loss of engine power during cruise flight due to fuel contamination. A factor was the pilot's impairment due to recent cocaine use.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: CRUISE

Findings

1. (C) FLUID,FUEL - CONTAMINATION,WATER
2. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
3. JUDGMENT - IMPROPER - PILOT IN COMMAND
4. (F) IMPAIRMENT(DRUGS) - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: DITCHING
Phase of Operation: EMERGENCY DESCENT/LANDING

Factual Information

HISTORY OF FLIGHT

On November 1, 2007, at 1406 central daylight time, a Mooney M20K, N4091H, experienced an engine failure during cruise flight and was ditched 1 mile off the shore of Panama City Beach, Florida. The airplane was substantially damaged. The certificated private pilot was killed, and the passenger incurred minor injuries. Visual meteorological conditions prevailed at the time of the accident, and no flight plan was filed for the personal flight. The airplane was registered to Treasure Realty Incorporated and operated by the private pilot, under the provisions of Title 14 Code of Federal Regulations (CFR) Part 91. The flight originated from Panama City International Airport (PFN), Panama City, Florida, at 1345.

The pilot's mechanic stated that the pilot contacted him at approximately 1219, and requested that he prepare the airplane for a short flight. He advised the pilot that he would need some time to get it ready. The mechanic further stated that the pilot told him that he was only going on a 30-minute local flight, and that he would be there shortly. The mechanic tried to start the engine but was unsuccessful. He then pulled the fuel drain inside the cockpit and water started to drain out of the right fuel tank. He continued to drain water out of both fuel tanks for approximately 45 minutes, then connected a power cart to the airplane and attempted to start the engine. The engine finally started and he let it run for 15 minutes. The mechanic added that when the pilot arrived at the airport, he suggested that the pilot should allow him to fully drain the fuel tanks. In response, the pilot told him that he was going on a short flight and that "he had to go." At that point the pilot and the passenger boarded the airplane and began to taxi. The pilot began taxiing the airplane while the power cart was still connected to the airplane. After that, he had no further contact with the pilot.

The PFN air traffic control tower personnel reported that at 1345, the pilot contacted the PFN tower controller and requested to depart "VFR" to the west. The controller advised the pilot to taxi to runway 32. At 1348, the PFN tower controller cleared the pilot for takeoff. At 1403, the pilot contacted the tower and advised the controller that he had lost engine power and was attempting to restart the engine. The tower controller advised the pilot that he was "cleared to land on runway 5, and squawk 7700." The controller stated that the airplane was at 2,100 feet over the beach, and 13 miles west of PFN, when the pilot radioed that he lost engine power. At 1406, the controller observed the airplane on radar at 600 feet. The pilot made no other radio transmissions to the air traffic controller.

PERSONNEL INFORMATION

The pilot, age 57, held a private pilot certificate with ratings for instrument airplane and airplane single-engine land. His certificate was issued on May 27, 1979. He held a third-class

medical certificate issued on July 28, 2005, with limitations for corrective lenses. The Federal Aviation Administration (FAA) blue ribbon medical records revealed that at the time of his last medical certificate, the pilot had a total flight time of 2,000 hours, and 50 hours within the last 6 months. The pilot's logbooks were not recovered for review.

AIRCRAFT INFORMATION

The airplane is a 1980 Mooney M20K, serial number 20-0468. It is a four-seat, low-wing airplane of predominantly aluminum construction with retractable tricycle landing gear. It was powered by a Teledyne Continental Motors (TCM) TSIO-360-GB, 220-horsepower engine and equipped with a two-bladed McCauley propeller, model 2A34C216.

The airplane's logbooks were not recovered for review. Review of a maintenance receipt revealed that the last annual inspection was conducted on March 6, 2007, at a total Hobbs time of 1,264.8. The total airframe time could not be determined. Review of refueling records revealed that the airplane was last refueled on August 8, 2007 at Sheltair Aviation Services, Panama City, Florida, with 51.10 gallons of aviation fuel.

WRECKAGE AND IMPACT INFORMATION

The airplane was located 1,500 feet off the shore of Panama City Beach, in the Gulf of Mexico, and approximately 13 miles west of PFN.

The airplane was recovered from the Gulf and remained intact. All primary flight control surfaces and airframe components were accounted for on the airplane during the recovery. Examination of the primary flight control surfaces did not reveal any mechanical anomalies. Examination of the left and right wing assemblies revealed that both fuel tanks were not breached, and both fuel tanks contained an undetermined amount water and fuel.

The engine remained attached to the airframe and the engine was displaced downward in the engine mounts. No other external visual anomalies were observed on the engine. All engine accessories remained attached to the engine assembly. The firewall sustained impact damaged on the lower section. The electrical wiring harness, and all flexible fluid lines aft of the engine were intact. The throttle control was in the full forward position. The mixture control at the carburetor was in the full rich position. The carburetor heat was in the off position.

Examination of the fuel system revealed that the fuel manifold valve was intact and secured. The TCM lead seal was not observed on the fuel manifold. When disassembled, there was water inside the manifold valve. The screen was intact and no debris was observed beneath the screen.

The fuel pump assembly was intact and secured, and there was visible surface corrosion to the pump housing and fuel lines. All fuel lines were intact and secured. Water was observed in the fuel lines when disconnected at the pump, and no fuel was observed. The pump was

rotated by hand and water was observed to flow from the fuel outlet line.

The propeller assembly remained attached to the propeller crankshaft flange. The propeller spinner assembly remained attached to the propeller spinner back plate and no damage was observed. Both propeller blades remained attached to the propeller hub. The propeller governor was intact and secured. The propeller control lever and cable were connected and actuated normally with no anomalies observed. No visual damage was observed to the hub assembly or blades.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot on November 2, 2007 by the State of Florida Office of the Medical Examiner, District Fourteen, as authorized by the Chief Medical Examiner of Panama City, Florida. The cause of death was reported as "drowning."

Forensic toxicology was performed on specimens from the pilot by the FAA Bioaeronautical Sciences Research Laboratory, Oklahoma City, Oklahoma. The toxicology report stated no ethanol was detected in the liver or muscle. Review of the toxicology report revealed:

0.583 (ug/ml, ug/g) cocaine detected in the blood
6.702 (ug/ml, ug/g) benzoylecgonine detected in blood
ecgonine methyl ester detected in blood
anhydroecgonine methylester detected in the blood.
35.605(ug/ml, ug/g) cocaine detected in urine
1478.1 (ug/ml, ug/g) benzoylecgonine detected in urine
ecgonine methyl ester detected in urine
anhydroecgonine methylester detected in urine
0.055(ug/ml, ug/g) cocaethylene detected in the urine.

A review of FAA medical records revealed that the pilot's most recent application for a third-class Airman Medical Certificate indicates "No" in response to "Do You Currently Use Any Medication" and in response to all other items under "Medical History," including specifically "Substance dependence or failed a drug test ever, or substance abuse or use of illegal substance in the last 2 years," "Admission to hospital" and "Other illness, disability, and surgery." The application also indicates "No" in response to "history of any convictions involving driving while intoxicated by, while impaired by, or while under the influence of alcohol or a drug..." and to "History of non-traffic convictions (misdemeanors or felonies)." The report of medical examination accompanying the application notes that the pilot "has been issued" a medical certificate.

Pilot Information

Certificate:	Private	Age:	57, Male
Airplane Rating(s):	Single-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 3 With waivers/limitations	Last FAA Medical Exam:	July 1, 2005
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	2000 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Mooney	Registration:	N4091H
Model/Series:	M20K	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	25-0468
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	March 1, 2007 Annual	Certified Max Gross Wt.:	2370 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	1264.8 Hrs as of last inspection	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	TSIO-360-GB
Registered Owner:	On file	Rated Power:	220 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:	KPFN,20 ft msl	Distance from Accident Site:	13 Nautical Miles
Observation Time:	13:53 Local	Direction from Accident Site:	80°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	15 knots / 21 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	40°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.96 inches Hg	Temperature/Dew Point:	27°C / 14°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Panama City, FL (PFN)	Type of Flight Plan Filed:	None
Destination:	Panama City , FL (PFN)	Type of Clearance:	None
Departure Time:	13:48 Local	Type of Airspace:	

Airport Information

Airport:	Panama City International PFN	Runway Surface Type:	
Airport Elevation:	20 ft msl	Runway Surface Condition:	
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal, 1 Minor	Latitude, Longitude:	30.209167,-85.887496

Administrative Information

Investigator In Charge (IIC):	Alleyne, Eric
Additional Participating Persons:	George Colbow; FAA/FSDO; Birmingham, AL Greg Schmidt; Teledyne Continental Motors; Mobile, AL
Original Publish Date:	September 26, 2008
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=67000

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).