



National Transportation Safety Board Aviation Accident Final Report

Location:	AO	Accident Number:	ERA12FAMS1
Date & Time:	03/01/2012, 1102 EST	Registration:	N1338S
Aircraft:	CESSNA 182P	Aircraft Damage:	Substantial
Defining Event:	Missing aircraft	Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot departed with about 25 to 30 gallons of fuel on-board and proceeded to fly over the Atlantic Ocean. About 23 minutes after takeoff, while operating in visual flight rules conditions, the airplane was lost from radar about 34 nautical miles east-southeast of the departure airport. The pilot's body and the airplane wreckage have not been located. The airplane's maintenance records were reportedly in the airplane; as a result, information concerning the last annual inspection was not available. The airplane's owner reported that the airplane "performed flawlessly" when he and another pilot flew it 2 days before the event flight. Multiple medications that had been prescribed for the pilot for the treatment of various conditions, including depression and anxiety, blood pressure, angina, high cholesterol, insomnia, and seizures were found during the subsequent investigation. The investigation considered the possibilities of 1) pilot impairment/incapacitation and 2) suicide; however, the lack of physical evidence (the airplane and pilot remain missing) made such a determination impossible.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Undetermined; the airplane and pilot are missing.

Findings

Not determined	Not determined - Unknown/Not determined (Cause)
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Factual Information

HISTORY OF FLIGHT

On March 1, 2012, about 1102 eastern standard time, a Cessna 182P, N1338S, registered to and operated by Akro Attitudes, Inc., went missing and is presumed to be substantially damaged. Visual meteorological conditions prevailed at the time and no flight plan was filed for the 14 Code of Federal Regulations (CFR) Part 91 personal, local flight from Willis Gliderport (FA44), Boynton Beach, Florida. The certificated private pilot is missing and presumed to be fatally injured. The flight is presumed to have originated from FA44 about 1039.

On March 6, 2012, the airplane owner reported the missing pilot and the owners missing airplane to local law enforcement. A law enforcement search of the residence where the pilot was staying revealed items including a Florida driver's license, Federal Aviation Administration (FAA) issued pilot and medical certificates.

An individual reported to local law enforcement on or after March 6, 2012, that sometime before lunch on March 1, 2012, they observed the airplane depart from FA44, returning there approximately 15 minutes later, then depart FA44 again flying to the south.

On March 7, 2012, about 1042 hours local, the FAA issued an alert notice (ALNOT) for the missing airplane. The ALNOT was cancelled on March 8, 2012.

According to uncorrelated radar data (1200 codes and Primary Radar Returns), on March 1, 2012, at 1039, a radar target was noted approximately .3 nautical mile and 145 degrees from the departure end of runway 09 at FA44. Plotting of the uncorrelated radar data revealed the flight continued on a southeasterly heading over the Atlantic Ocean. The last radar return of the uncorrelated radar targets was at 1102, and was located at 26 degrees 17.502 minutes North latitude and 079 degrees 39.228 minutes West longitude, or approximately 34 nautical miles and 117 degrees from FA44. That position corresponds to a location approximately 23 nautical miles east-southeast of Boca Raton, Florida.

PERSONNEL INFORMATION

The pilot, age 56, held a private pilot certificate with airplane single engine land rating. He held a third class medical certificate with a restriction to wear corrective lenses issued February 9, 2011. On the application for his last medical certificate he listed 2,000 hours as his total flight time, and 100 hours in the past 6 months.

National Transportation Safety Board review of his certified medical file provided by the Federal Aviation Administration (FAA) Aerospace Medical Certification Division revealed it contained a first medical application form dated September 20, 1990, and the last medical application form was dated February 9, 2011. Review of the medical application form for his last medical certificate reflects the "Yes" block was marked with an "X" and crossed through, and the "No" box was marked with an "X" to the question asking whether he currently uses any prescription or non-prescription medication. On the same application he marked a line through the "No" blocks to questions asking whether he had ever been diagnosed with, had, or do you presently have any "Mental disorders of any sort; depression, anxiety, etc.", and "Suicide Attempt." He also reported no visits to a health professional in the last three years.

As indicated by the Palm Beach County Sheriff Department report, after being notified of the missing airplane by the airplane owner, a deputy responding to the departure location was

shown by the airplane owner items for the missing pilot consisting of his pilot and medical certificates. The owner also advised law enforcement finding the missing pilot's wallet in a wastebasket under the kitchen sink. Additionally, prescription medications belonging to the pilot were found in his medications bag. The medication consisted of 100MG tablets of trazadone, 50MG tablets of doxepin, 1MG tablets of clonazepam, 20MG tablets of pravastatin, and 5MG tablets of amlodipine besylate.

An empty prescription bag from a CVS pharmacy for the missing pilot dated February 29, 2012, for 30 tablets of 30MG temazepam was located; however, the pill bottle and pills were not located anywhere in or around the residence.

According to a doctor with the FAA, Office of Aerospace Medicine (CAMI), the prescription medications associated with the missing pilot listed below are for:

Amlodipine besylate 5 mg tablets - Amlodipine (Norvasc®) is a prescription calcium channel blocker medication used to treat high blood pressure and angina.

Clonazepam 1 mg tablets - Clonazepam (Klonopin®) is a prescription benzodiazepine used alone or as an adjunct in the treatment of some seizure disorders it is also used to treat panic disorders.

Doxepin 50mg capsules – Doxepin (Sinequan ®) is in a prescription tricyclic antidepressant used to treat depression and anxiety.

Pravastatin sodium 20 mg tablets – Pravastatin (Pravachol®) is a prescription lipid-lowering compounds, is an HMG-CoA reductase inhibitor, which reduces cholesterol biosynthesis. This medication is used to treat elevated blood lipids.

Trazadone 100 mg tablets - Trazodone (Desyrel®) is a prescription antidepressant that selectively inhibits serotonin uptake and is used in the treatment of depression.

Temazepam (Restoril®) is a prescription benzodiazepine hypnotic agent. It is used for the short-term treatment of insomnia it is also a metabolite of Diazepam. Half life ranges from 3 to 13 hours.

An individual who had a previous relationship with the missing pilot reported to law enforcement that the missing pilot advised her of being in pain, and about 1 year earlier said if he disappeared it would be over water and nobody would find him. The individual last saw the missing pilot on February 26, 2012.

Another friend of the pilot reported to law enforcement that the missing pilot had previously made statements with words to the affect that when I go, I'm going out with a bang, but he said that same comment jokingly to other friends as well.

The airplane owner reported to law enforcement that the missing pilot seemed to be depressed lately, and the missing pilot told him about 1 year earlier words to the affect of "ending it." The owner questioned him about this and the missing pilot immediately recanted that statement.

The medication associated with the missing pilot was provided to his relatives. The parents and sister of the missing pilot advised law enforcement on May 8, 2012, that the prescription for 30 tablets of 50MG Doxepin was filled on February 16, 2012; all pills were accounted for. The prescription for Amlodipine Besylate, filled on June 4, 2011, for a quantity (30); three were remaining. The prescription for Clonazepam 1mg, filled on January 30, 2012, none remained in the prescription bottle. The prescription for Trazodone 100mg-for a quantity of 60, filled on

02/13/12; two were left in the prescription bottle. The prescription for Pravastatin Sodium 20mg- for a quantity of 30; none were left in prescription bottle.

AIRCRAFT INFORMATION

The airplane was manufactured in 1976 by Cessna Aircraft Company as model 182P, and designated serial number 18264901. At the time of the accident, it was powered by a 230 horsepower Continental Motors, Inc., O-470-S engine and equipped with a McCauley constant speed propeller.

Records from the Federal Aviation Administration (FAA), located in Oklahoma City, Oklahoma, reflected several FAA 337 forms indicating changes to the original type design. Changes to the original type design included in part installation of Robertson full span wing trailing edge flap system in accordance with (IAW) Supplemental Type Certificate (STC) SA1382WE, installation of placards and decals per STC SE1997CE allowing the use of automotive fuel, installation of an Electronics International components consisting of a UBG-16 engine analyzer, R-1 RPM indicator, M-1 manifold pressure gauge, and digital Volts/Amps meter VA-1A IAW STC's SA00680SE, SA5924NM, SA5926NM and SA2693NM, respectively. Additionally, the airplane was also modified by removal of the existing autopilot system, and installation of a S-TEC System 30 autopilot system IAW STC SA09319AC.

The airplane owner reported that the maintenance records were last seen in the airplane. A document provided to or obtained by the NTSB pertaining to the last transponder check which was performed on January 27, 2012. The paperwork associated with the work indicates the aircraft time was listed as 4,777.03. A copy of the document is contained in the NTSB public docket for this case.

The owner reported that he and another pilot last flew the airplane on February 28, 2012. The flight was from FA44 to River Oak Airport (00FL), Okeechobee, Florida, then returned to FA44. Prior to departure from FA44, he added 40 gallons of 100 low lead fuel to the fuel tanks, bringing the total capacity to between 40 and 50 gallons. The round trip flight duration was about 80 minutes, and after returning to FA44, the airplane had about 25 to 30 gallons fuel on-board. He also stated that the aircraft performed flawlessly including altitude hold of the autopilot system. After landing at FA44, he checked the oil level and none was used, and then wrote down the tachometer time in a little log that is kept in the airplane; he did not recall the ending tachometer time. The owner also reported that after the accident, he looked at the log for his portable fuel tank and no other fuel had been taken from it since fueling on February 28, 2012; no other fuel was available at FA44.

METEOROLOGICAL INFORMATION

A surface observation weather report taken at Palm Beach International Airport (PBI) on the day of the accident at 1130, or approximately 28 minutes after the airplane was lost from radar, indicates the wind was from 140 degrees at 12 knots, and the visibility was 10 miles. Broken clouds existed at 2,800 feet, 3,800 feet, and also 5,000 feet. The temperature and dew point were 26 and 20 degrees Celsius respectively, and the altimeter setting was 30.11 inches of Mercury. The accident site was located approximately 33 nautical miles and 135 degrees from PBI.

According to WSR-88d base reflectivity imagery from Miami, Florida (KAMX), at 1102 EST, with the final portion of the missing aircraft's flight path overlaid. No weather radar "echoes" were identified in the area of the missing aircraft's final position at this time. The KAMX

imagery from a scan that was completed with an antenna tilt at 0.52° above the horizon, at a distance of approximately 59 nautical miles from the radar, and considering the 0.52 degree tilt with a 0.95 degree beamwidth, at the location of the missing aircraft's final position, the KAMX radar would have "seen" between approximately 2,600 and 8,500 feet above the water.

Review of rawinsonde sounding from Miami, Florida, at 0700 EST, indicates relatively light wind magnitudes (< 12 knots) between the surface and approximately 18,000 feet.

Visible imagery from the GOES-13 geostationary satellite at 1102 EST, identified fair-weather cloud formations in the vicinity of the missing aircraft's final position. Cloud-top heights were estimated to be between 1,000 and 2,000 feet.

No Airman's Meteorological Information (AIRMET) advisories were active for the area at the times of interest.

COMMUNICATIONS

The pilot was not in contact with any Federal Aviation Administration (FAA) air traffic control facility at any point during the flight.

WRECKAGE AND IMPACT INFORMATION

No wreckage was located or recovered.

MEDICAL AND PATHOLOGICAL INFORMATION

The pilot's body has not been located or recovered.

History of Flight

Unknown	Missing aircraft (Defining event)
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Pilot Information

Certificate:	Private	Age:	56, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With Waivers/Limitations	Last Medical Exam:	02/09/2011
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	2000 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	CESSNA	Registration:	N1338S
Model/Series:	182P	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	18264901
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	2950 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	CONT MOTOR
ELT:	Installed, not activated	Engine Model/Series:	O-470 SERIES
Registered Owner:	AKRO ATTITUDES INC	Rated Power:	230 hp
Operator:	AKRO ATTITUDES INC	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	PBI, 19 ft msl	Observation Time:	1130 EST
Distance from Accident Site:	33 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:	315°	Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:		Temperature/Dew Point:	26° C / 20° C
Lowest Ceiling:	Broken / 2800 ft agl	Visibility	10 Miles
Wind Speed/Gusts, Direction:	12 knots, 140°	Visibility (RVR):	
Altimeter Setting:	30.11 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Boynton Beach, FL (FA44)	Type of Flight Plan Filed:	None
Destination:	Boynton Beach, FL (FA44)	Type of Clearance:	None
Departure Time:	1039 EST	Type of Airspace:	

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	Timothy W Monville	Adopted Date:	10/15/2012
Additional Participating Persons:	Al Frank; FAA International Field Office; Miramar, FL		
Publish Date:	10/15/2012		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=83064		

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.