



Aviation Investigation Final Report

Location:	Newnan, Georgia	Accident Number:	ERA10CA258
Date & Time:	May 9, 2010, 18:45 Local	Registration:	N5FM
Aircraft:	MOYNAHAN MOYNAHAN PITTS S-1S	Aircraft Damage:	Substantial
Defining Event:	Fuel exhaustion	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot of the amateur-built aerobatic airplane stated that he planned to perform three touch-and-go landings. Prior to flight he used a stick he had previously calibrated to check his main fuel tank. His main fuel tank held 19 gallons, with 1 gallon unusable, and he did not store any fuel in his auxiliary fuel tank. He measured 5 to 6 inches of fuel on his stick, which he equated to approximately 6.5 gallons of fuel. About 15 minutes after engine start the pilot was completing his third touch-and-go landing when, on the upwind leg and at approximately 300 feet above ground level, the engine lost all power. The pilot attempted to turn around and land on the runway in the opposite direction of takeoff; however, the airplane impacted the airport ramp area and came to rest upright. Examination of the wreckage by a Federal Aviation Administration inspector revealed that the main fuel tank, including the clear fuel line leading from the tank to the fuel selector valve, was absent of fuel. The inspector and airport personnel did not notice any evidence of the fuel tank being compromised or any postimpact fuel spill.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A total loss of engine power due to fuel exhaustion as a result of the pilot's inadequate preflight fuel planning.

Findings

Personnel issues	Fuel planning - Pilot
Aircraft	Fuel - Fluid level

Factual Information

History of Flight

Initial climb	Fuel exhaustion (Defining event)
Initial climb	Loss of engine power (total)
Emergency descent	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Private	Age:	52, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Single
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 FAA Medical Exam:	June 10, 2009
Occupational Pilot:	No	Last Flight Review or Equivalent:	March 8, 2009
Flight Time:	574 hours (Total, all aircraft), 115 hours (Total, this make and model), 574 hours (Pilot In Command, all aircraft), 14 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	MOYNAHAN	Registration:	N5FM
Model/Series:	MOYNAHAN PITTS S-1S	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	0001
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	May 6, 2010 Annual	Certified Max Gross Wt.:	1150 lbs
Time Since Last Inspection:	0 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	130 Hrs at time of accident	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	O-360
Registered Owner:	MOYNAHAN FRANK J	Rated Power:	180 Horsepower
Operator:	MOYNAHAN FRANK J	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	CCO,970 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	18:40 Local	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.2 inches Hg	Temperature/Dew Point:	20°C / 5°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Newnan, GA (CCO)	Type of Flight Plan Filed:	None
Destination:	Newnan, GA (CCO)	Type of Clearance:	None
Departure Time:	18:45 Local	Type of Airspace:	

Airport Information

Airport:	Newnan Coweta County Airport CCO	Runway Surface Type:	Asphalt
Airport Elevation:		Runway Surface Condition:	Dry
Runway Used:	14	IFR Approach:	None
Runway Length/Width:	5500 ft / 100 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	33.311389,-84.769721(est)

Administrative Information

Investigator In Charge (IIC):	Gretz, Robert
Additional Participating Persons:	Jim Massey; FAA/FSDO; Atlanta, GA
Original Publish Date:	August 12, 2010
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=75966

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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](#).