



Aviation Investigation Final Report

Location:	Alturas, California	Accident Number:	LAX05LA279
Date & Time:	August 25, 2005, 07:50 Local	Registration:	N337Z
Aircraft:	Beech 35-A33	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airplane impacted terrain and a fence during a forced landing following a loss of engine power. According to the pilot, he checked the fuel tanks prior to departing on the flight and noted that the right main fuel tank was full, the left main tank was "partial", both auxiliary tanks were full and the tip tanks were empty. He flew the airplane to the destination airport utilizing the left fuel tank. As the flight neared the destination airport, the pilot switched the fuel tank selector from the left to the right tank. The engine began sputtering and lost power. The pilot turned on the fuel boost pump but the engine power did not improve. During the forced landing at the destination airport, the airplane landed short, bounced in the air and impacted a fence before coming to rest. According to a mechanic who examined the airplane after the accident, the left main fuel tank was empty and the right main fuel tank was almost full.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of engine power for underdetermined reasons.

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - NONMECHANICAL
Phase of Operation: DESCENT - NORMAL

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED

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

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

2. TERRAIN CONDITION - GROUND

Factual Information

On August 25, 2005, at 0750 Pacific daylight time, a Beech 35-A33 single-engine airplane, N337Z, was substantially damaged when it impacted terrain during a forced landing following a loss of engine power at the Alturas Municipal Airport, Alturas, California. The airplane was registered to a private individual and operated by the pilot under the auspices of 14 CFR Part 91 as a personal flight. The pilot, sole occupant, sustained minor injuries. Visual meteorological conditions prevailed for the cross-country flight that originated from Montague, California, at 0705.

During a telephone interview conducted by the NTSB investigator-in-charge, the pilot indicated he was flying to Alturas to participate in aerial fire fighting operations. The flight to Alturas was uneventful, and while at 7,500 feet, about 10 miles from the airport, he reduced power for descent. The engine lost power and continued to "sputter" during the entire descent. The pilot reported that the fuel flow was "real low." He went through the emergency procedures by turning the fuel boost pump on and switched the fuel selector from the left to the right; however, was only able to obtain a "bit of power." He then secured the airplane for landing.

When asked to clarify whether or not the engine lost power before or after he switched fuel tanks, the pilot stated that he switched fuel tanks from the left to the right, reduced engine power for the descent, and then the engine lost power. He said he knew the left fuel tank was near empty when he switched to the right tank. He added that the right tank and auxiliary tanks were near full when he switched and after losing engine power, he tried the other fuel tanks.

The airplane impacted terrain and a fence, structurally damaging the left rear spar and leading edge of the right wing. The firewall was damaged and the engine was displaced from its mount.

The pilot provided a written statement regarding the events that preceded the accident. According to his statement, he conducted a preflight inspection and noticed that the right main fuel tank was full, the left main tank was "partial", and both auxiliary fuel tanks were full. He conducted an engine run-up and departed for Alturas.

The pilot flew the airplane to Alturas utilizing the left fuel tank, and switched fuel tanks from the left to the right when the airplane was about 10 miles from the airport. The pilot maneuvered the airplane on base for runway 13 and reduced power for the descent to the airport. At that point in the flight, the engine began to "lose power and sputter" so the pilot applied full throttle and mixture, and moved the propeller control to the full forward position. The pilot also turned the fuel boost pump to the ON position and noted the fuel pressure rise to "the 6-7 range [6 to 7 psi]." According to the pilot, the engine continued to sputter so the pilot

repositioned the fuel selector back to the left fuel tank, but did not notice the engine improve. The pilot continued to utilize the boost pump and manipulate the throttle control, but could not develop full power. He kept the landing gear retracted and lined up for the runway. When he lowered the landing gear, the descent rate increased and the airplane landed short of the runway, bounced into the air, crossed over a road and hit a chain link fence. When the airplane came to rest, the pilot shut down the airplane and exited.

According to a mechanic who repositioned the airplane to the airport ramp area following the accident, the left main fuel tank was empty and the right main fuel tank was about full.

According to the pilot's statement, he accumulated a total of 3,955 hours of flight time, of which 4.2 hours were accumulated in the accident airplane make and model.

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	Age:	49, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 2 Without waivers/limitations	Last FAA Medical Exam:	February 1, 2005
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	March 1, 2005
Flight Time:	3955 hours (Total, all aircraft), 3734 hours (Pilot In Command, all aircraft), 185 hours (Last 90 days, all aircraft), 52 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N337Z
Model/Series:	35-A33	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	CD-228
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	November 1, 2004 Annual	Certified Max Gross Wt.:	3200 lbs
Time Since Last Inspection:	240 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	8615 Hrs at time of accident	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	IO-470-K
Registered Owner:	Thomas H. Palmer	Rated Power:	225 Horsepower
Operator:	Robert A. Paananen	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
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:		Temperature/Dew Point:	10°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Montague, CA (SIY)	Type of Flight Plan Filed:	None
Destination:	Alturas, CA (AAT)	Type of Clearance:	None
Departure Time:	07:05 Local	Type of Airspace:	

Airport Information

Airport:	Alturas Municipal AAT	Runway Surface Type:	Asphalt
Airport Elevation:	4374 ft msl	Runway Surface Condition:	Dry
Runway Used:	13	IFR Approach:	None
Runway Length/Width:	4301 ft / 50 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	41.483055,-120.565277

Administrative Information

Investigator In Charge (IIC):	Charnon, Nicole
Additional Participating Persons:	Michael Clark; Federal Aviation Administration; Reno, NV
Original Publish Date:	May 29, 2007
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=62334

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](#).