Aviation Investigation Final Report

Location:	Ontario, Oregon	**Accident Number:**	SEA06LA154
Date & Time:	August 4, 2006, 14:30 Local	**Registration:**	N1221P
Aircraft:	Piper PA-23-150	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	4 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot estimated there was 82 gallons of fuel on board when he departed on the second leg of the cross-country flight. Approximately 3 hours and 30 minutes later, after the gear was down and locked and while turning from downwind to base, the pilot noticed a vibration coming from the left side of the airplane; an unsuccessful attempt to lower the flaps confirmed that the left engine had failed. Being high and fast with no flaps the pilot elected to continue his approach and land, but over the approach end of the runway the right engine quit. The pilot then attempted to force the airplane onto the runway, which resulted in several bounces. The airplane made firm contact with the runway, then overran the end of the runway, going off the end of the runway, and then over an irrigation ditch before coming to rest upright in an onion field. A post-accident investigation of the airplane's four fuel tanks revealed that the right auxiliary, right main, and left main fuel tanks were empty, while the left auxiliary fuel tank had about 2 inches of fuel remaining. The investigation revealed no anomalies with the airplane, which would have precluded normal operation. The pilot stated that he didn't know where the fuel went, only that he encountered some high winds en route to his destination.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate inflight decision by failing to refuel while en route, resulting in fuel exhaustion and the loss of power. Factors were the en route high wind condition and the soft terrain.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: APPROACH - VFR PATTERN - BASE TURN

Findings
1. (C) IN-FLIGHT PLANNING/DECISION - INADEQUATE - PILOT IN COMMAND
2. (C) FLUID,FUEL - EXHAUSTION
3. (C) REFUELING - NOT PERFORMED - PILOT IN COMMAND
4. (F) WEATHER CONDITION - HIGH WIND

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

Occurrence #3: OVERRUN
Phase of Operation: LANDING - ROLL

Findings
5. (F) TERRAIN CONDITION - SOFT

Factual Information

On August 4, 2006, approximately 1430 mountain daylight time, a Piper PA-23-150 multiengine airplane, N1221P, sustained substantial damage following a loss of engine power in both engines, followed by a bounced landing and runway overrun at the Ontario Municipal Airport (ONO), Ontario, Oregon. The airplane was registered to and operated by a private individual. The airline transport pilot and his three passengers received minor injuries. Visual meteorological conditions prevailed for the personal cross-country flight, which was operated in accordance with 14 CFR Part 91, and a visual flight rules (VFR) flight plan was filed. The flight departed the Sweetwater County Airport (RKS), Rock Springs, Wyoming, at 1115, with its destination being ONO.

In a written statement and in a telephone interview with the NTSB investigator-in-charge, the pilot reported that the cross-country flight was planned from Wa Kenney, Kansas to Lewiston, Idaho, with scheduled fuel stops in Rock Springs, Wyoming and Ontario, Oregon. The pilot stated that after landing at Rock Springs he added 43 gallons of fuel for a total of 82 gallons; 36 gallons in each main tank and 5 gallons in each auxiliary wing tank. The pilot further stated that approximately 20 miles from the Ontario airport he noted that the fuel remaining in the main tanks was one-quarter full, with 5 gallons in each auxiliary tank. The pilot reported that he continued inbound, entered left downwind for Runway 14, and after lowering the landing gear he observed the gear lights displaying down and locked. The pilot stated that as he started to turn onto his base leg he noticed a vibration coming from the left side of the airplane, and as he proceeded toward the runway he observed the left propeller slowing down. The pilot further stated that when he attempted to lower the flaps and they didn't respond, this confirmed that the left engine had failed. The pilot reported that when he realized he was "high and fast" and needed to get the airplane on the runway, he attempted to force the airplane onto the runway, which resulted in several bounces. The pilot further reported that he finally made firm contact with the runway and started maximum braking before entering the overrun, going off the end of the runway and over an irrigation ditch before coming to rest upright in an onion field. There was no post-crash fire. The pilot stated that he didn't know where the fuel went, only that he encountered some high winds en route to his destination.

A Federal Aviation Administration airworthiness safety inspector, who traveled to the accident site, reported that an on-scene investigation of the airplane's four fuel tanks revealed that the right auxiliary, right main, and left main fuel tanks were empty, while the left auxiliary fuel tank had about 2 inches of fuel remaining. The inspector also reported that the right propeller was in the feathered position while the left propeller was in the unfeathered position; both of the engine's propeller control levers were in the feathered position. A subsequent inspection by the inspector after the aircraft was recovered failed to reveal any anomalies with the airplane which would have precluded normal operation.

Pilot Information

Certificate:	Airline transport; Commercial	**Age:**	71,Male
Airplane Rating(s):	Single-engine land; 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 With waivers/limitations	**Last FAA Medical Exam:**	February 1, 2005
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	January 1, 2006
Flight Time:	6422 hours (Total, all aircraft), 1000 hours (Total, this make and model), 4078 hours (Pilot In Command, all aircraft), 28 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N1221P
Model/Series:	PA-23-150	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	23-241
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	June 1, 2006 Annual	**Certified Max Gross Wt.:**	3500 lbs
Time Since Last Inspection:	13.5 Hrs	**Engines:**	2 Reciprocating
Airframe Total Time:	5770.6 Hrs as of last inspection	**Engine Manufacturer:**	Lycoming
ELT:	Installed, activated, aided in locating accident	**Engine Model/Series:**	O-320
Registered Owner:	Leary J. Johnson	**Rated Power:**	150 Horsepower
Operator:		**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	
Observation Facility, Elevation:	ONO,2193 ft msl	**Distance from Accident Site:**	
Observation Time:	14:30 Local	**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:	29.87 inches Hg	**Temperature/Dew Point:**	33°C / 5°C
Precipitation and Obscuration:			
Departure Point:	Rock Springs, WY (RKS)	**Type of Flight Plan Filed:**	VFR
Destination:	Ontario, OR (ONO)	**Type of Clearance:**	VFR
Departure Time:	11:15 Local	**Type of Airspace:**	

Airport Information

Airport:	Ontario Municipal Airport ONO	**Runway Surface Type:**	Asphalt
Airport Elevation:	2193 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	14	**IFR Approach:**	None
Runway Length/Width:	4307 ft / 100 ft	**VFR Approach/Landing:**	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Minor	**Aircraft Damage:**	Substantial
Passenger Injuries:	3 Minor	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	4 Minor	**Latitude, Longitude:**	44.014167,-117.010276

Administrative Information

Investigator In Charge (IIC):	Little, Thomas
Additional Participating Persons:	Cliff Smart; Federal Aviation Administration; Boise, ID
Original Publish Date:	March 26, 2007
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=64291

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.