



Aviation Investigation Final Report

Location:	CHANDLER, Arizona	Accident Number:	LAX99LA039
Date & Time:	November 22, 1998, 09:28 Local	Registration:	N78114
Aircraft:	Varga 2150A	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot had an engine failure while en route to his destination. He reported that there were no services available at the departure airport, and he did not perform a visual preflight check of the fuel tanks to determine quantity before departure. The engine failed approximately 8 miles from the airport, and the pilot made a forced landing in a residential farming area. The aircraft landed in a plowed field, proceeded to cross a road, hit a street sign, and finally hit a residential block wall. Upon examination, the fuel system continuity was established and a total of 4 ounces of fuel was found in the tanks and the lines.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Fuel exhaustion due to the pilot's failure to perform an adequate preflight of the aircraft to ensure that adequate fuel was available for the flight.

Findings

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

Findings

1. (C) FLUID,FUEL - EXHAUSTION
2. (C) AIRCRAFT PREFLIGHT - NOT PERFORMED - PILOT IN COMMAND
3. (C) FUEL SUPPLY - NOT VERIFIED - PILOT IN COMMAND

Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

4. TERRAIN CONDITION - RESIDENTIAL AREA

Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: LANDING - ROLL

Findings

5. OBJECT - SIGN

6. OBJECT - WALL/BARRICADE

Factual Information

On November 22, 1998, at 0928 hours mountain standard time, a Varga 2150A, N78114, lost power shortly before landing at the Chandler, Arizona, airport, and force landed in a residential area. During the landing, the aircraft collided with multiple ground obstructions. The aircraft, owned and operated by the pilot under 14 CFR Part 91, took off from Payson Arizona, about 0850 and was destined for Chandler. Visual meteorological conditions prevailed at the time and no flight plan was filed. The aircraft sustained substantial damage. Neither the private pilot nor the one passenger onboard was injured.

In a written statement, the pilot stated that he was on a flight from Chandler to Payson with a planned return to Chandler. He reported there were no fuel services available in Payson and he departed for the return leg to Chandler. The pilot further stated he had an engine failure approximately 8 miles from the Chandler airport, over a residential farming area. The engine sputtered for several seconds and quit. The pilot attempted to restart the engine but was unsuccessful. He landed the airplane in a plowed field, crossed a road, collided with a street sign, and finally hit a residential block wall.

In a phone interview on June 18, 1999, the pilot stated that he added 10 gallons of automotive fuel to top the tanks off before departing Chandler. The pilot further stated that there were no other mechanical malfunctions with the aircraft. The pilot said he did not perform a visual preflight check of the fuel quantity before departing Payson.

The company that retrieved the aircraft, Air Transport of Phoenix, Arizona, documented the fuel system during disassembly of the aircraft for movement. All tanks, lines, and the fuel cap seals were intact. The fuel system was drained and a total of 4 ounces of fuel were found in the tanks and lines.

Pilot Information

Certificate:	Private	Age:	42,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Front
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 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	November 30, 1998
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	2427 hours (Total, all aircraft), 68 hours (Total, this make and model), 2427 hours (Pilot In Command, all aircraft), 42 hours (Last 90 days, all aircraft), 12 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Varga	Registration:	N78114
Model/Series:	2150A 2150A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	VAC-114-78
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	September 5, 1998 Annual	Certified Max Gross Wt.:	1817 lbs
Time Since Last Inspection:	15 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	1568 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-320-A2C
Registered Owner:	RONALD A. STARLING	Rated Power:	150 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	PHX ,1133 ft msl	Distance from Accident Site:	15 Nautical Miles
Observation Time:	08:56 Local	Direction from Accident Site:	340°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	110°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	24°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	PAYSON (E69)	Type of Flight Plan Filed:	None
Destination:	(CHD)	Type of Clearance:	VFR
Departure Time:	08:50 Local	Type of Airspace:	Class D

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	33.319278,-111.820175(est)

Administrative Information

Investigator In Charge (IIC): Rich, Jeff

Additional Participating Persons: CHRIS CLARK; SCOTTSDALE, AZ

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Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=45370>

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](#).