



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	LONGMONT, CO	<b>Accident Number:</b>	FTW96LA158
<b>Date &amp; Time:</b>	04/01/1996, 1449 MST	<b>Registration:</b>	N84PS
<b>Aircraft:</b>	STAFFORD RV-4	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 Minor

**Flight Conducted Under:** Part 91: General Aviation - Personal

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## Analysis

Upon arriving at the destination airport from a local cross country flight, the pilot performed three touch and go landings. While on the crosswind leg of the fourth pattern circuit, which was to culminate in a full stop landing, the engine lost power and the pilot made an emergency landing in a plowed field. During the landing roll, one main landing gear collapsed and the airplane nosed over. The flight originated with 11 gallons of fuel on board, and the duration of the flight was 54 minutes. According to the pertinent Lycoming engine chart, the fuel consumption at 75 percent power (2,450 rpm) is 10.5 gallons per hour. A review of the pilot's aero/medical data revealed him to be non-current in flight proficiency and medical certification.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's inadequate preflight planning and preparation in that he failed to ensure the aircraft had sufficient fuel to complete the flight. A factor was the soft terrain.

## Findings

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Occurrence #1: LOSS OF ENGINE POWER

Phase of Operation: APPROACH - VFR PATTERN - BASE LEG/BASE TO FINAL

Findings

1. (C) FLUID,FUEL - EXHAUSTION
2. (C) PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
3. LACK OF CERTIFICATION - PILOT IN COMMAND
4. LACK OF RECENT EXPERIENCE - PILOT IN COMMAND

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Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

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Occurrence #3: MAIN GEAR COLLAPSED

Phase of Operation: LANDING - ROLL

Findings

5. TERRAIN CONDITION - OPEN FIELD
6. (F) TERRAIN CONDITION - SOFT
7. LANDING GEAR,MAIN GEAR - OVERLOAD

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Occurrence #4: NOSE OVER

Phase of Operation: LANDING - ROLL

## Factual Information

On April 1, 1996, at 1449 mountain standard time, a Stafford RV-4 home built, N84PS, nosed over in a field near Longmont, Colorado, during an emergency landing following a complete loss of power. The two pilots aboard received minor injuries, and the aircraft sustained substantial damage. Visual meteorological conditions prevailed for the local area personal flight operating under Title 14 CFR Part 91. No flight plan was filed. The flight originated from Greeley, Colorado, (GXY) approximately 54 minutes prior to the accident. The pilot said that at the time of the flight's departure, the airplane had 11 gallons of fuel on board.

According to the pilot, after arriving in the Longmont area they conducted three touch-and-go landings and were on a cross wind leg for a full stop when the engine "abruptly" quit. The pilot said three restarts of the engine were attempted without success, and he conducted a forced landing to a plowed field. During landing roll, the right main landing gear collapsed and the aircraft nosed over.

Following the accident, two FAA inspectors examined the aircraft on two occasions. The first examination took place the day of the accident. According to the attached statement provided by the FAA inspectors, they found no evidence of fuel in or around the aircraft. In addition, in a statement made to the FAA inspectors, the pilot stated he should have had approximately 12 gallons of fuel on board at the time of the accident.

The same inspectors returned the following day, April 2nd, and at that time found fuel in the left tank. In addition, the right magneto was inoperative. This was attributed to impact damage by the inspectors. No other evidence was found to prevent the engine from operating.

A review of the O-360-A1D engine performance information was conducted. According to the Lycoming manual (page attached) the engine at 75 percent power (2450 rpm) burns approximately 10.5 gallons per hour.

A review of pilot information produced evidence that the pilot's medical certificate and his biennial flight review were not current. Attached is information provided by the pilot to document a current biennial flight review and medical certificate. Both were executed after the accident date. Also, according to the information provided in the Pilot Operator Report, the pilot had not flown in the previous 90 days prior to this flight.

The pilot/passenger in the rear seat owned the airplane. He was a certified flight instructor (CFI), and was current in all respects. The flying pilot said that he was the pilot in command and that the CFI was a "passenger."

The rear cockpit in this aircraft was equipped with aileron and elevator controls only. There are no rudders, throttle, mixture control, flap control or instruments.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	51, Male
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Seat Occupied:</b>	Front
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Invalid Medical for flight	<b>Last FAA Medical Exam:</b>	04/04/1996
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	666 hours (Total, all aircraft), 490 hours (Total, this make and model), 640 hours (Pilot In Command, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	STAFFORD	<b>Registration:</b>	N84PS
<b>Model/Series:</b>	RV-4 RV-4	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental	<b>Serial Number:</b>	832
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	06/10/1995, AAIP	<b>Certified Max Gross Wt.:</b>	1600 lbs
<b>Time Since Last Inspection:</b>	98 Hours	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	616 Hours	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-360-A1D
<b>Registered Owner:</b>	DONALD C. BLESSING	<b>Rated Power:</b>	180 hp
<b>Operator:</b>	WILLIAM J. MANSFIELD	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	2V2, 5052 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	1500 MST	Direction from Accident Site:	120°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	0 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	70°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	22° C
Precipitation and Obscuration:			
Departure Point:	GREELEY, CO (GXY)	Type of Flight Plan Filed:	None
Destination:	(2V2)	Type of Clearance:	None
Departure Time:	1425 MST	Type of Airspace:	Class G

## Airport Information

Airport:	VANCE BRAND (2V2)	Runway Surface Type:	Concrete
Airport Elevation:	5052 ft	Runway Surface Condition:	Dry
Runway Used:	11	IFR Approach:	None
Runway Length/Width:	5130 ft / 75 ft	VFR Approach/Landing:	Forced Landing; Full Stop; Traffic Pattern

## Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Minor	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	NORMAN F WIEMEYER	Report Date:	07/17/1996
Additional Participating Persons:	TOM FORCHTNER; DENVER, CO TOM SCIACCA; DENVER, CO		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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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. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).