



Aviation Investigation Final Report

Location:	BOZEMAN, Montana	Accident Number:	DEN83LA172
Date & Time:	July 22, 1983, 10:30 Local	Registration:	N2834J
Aircraft:	CESSNA T188C	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

THE ACFT SETTLED INTO TREES AFTER THE ENGINE LOST POWER DURING A SWATH RUN. THE FLT HAD BEEN IN PROGRESS FOR ABOUT 15 MINUTES. THE PLT STARTED THE 4TH RUN AND THE ACFT STARTED TO SETTLE. THE PLT DUMPED THE LOAD BUT DID NOT TOUCH THE THROTTLE OR MIXTURE. HE HAD SET THE THROTTLE AND MIXTURE FOR THE OPERATION AND TIGHTENED THE FRICTION ADJUSTMENT. THE MIXTURE HAD BEEN LEANED TO PEAK TEMPERATURE AND THEN ENRICHED SO THE CYL HEAD TEMP WAS PEAK TEMP MINUS 125 DEGREES. THE MANIFOLD PRESSURE WAS 32 INCHES AND THE PROP SET AT 2400 RPM THE PILOT WAS ASKED ABOUT HIS USE OR POWER AND MIXTURE AND HE SAID HE DID NOT MOVE OR ADJUST THEM FROM THE TIME HE SET THEM AFTER INITIAL LEVELOFF UNTIL GROUND IMPACT. HE SAID THAT AFTER THE ACCIDENT THESE CONTROLS WERE IN A NORMAL FLT POSITION. THE PILOT WAS WEARING A HELMET AND SAID IT WOULD BE POSSIBLE FOR THE ENGINE TO STOP AND HIM NOT BE ABLE TO HEAR IT. FROM THE CONDITION OF THE PROPELLER IT WAS DETERMINED THAT THE ENGINE WAS NOT PRODUCING POWER AT IMPACT. DURING INSPECTION, NOTHING WAS FOUND WRONG WITH THE POWERPLANT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings

1. (C) THROTTLE/POWER CONTROL - IMPROPER USE OF - PILOT IN COMMAND
2. (C) MIXTURE - IMPROPER USE OF - PILOT IN COMMAND
3. (C) LOAD JETTISON - PERFORMED - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

4. (F) OBJECT - TREE(S)

Factual Information

Pilot Information

Certificate:	Commercial	Age:	38, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	May 25, 1983
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	1490 hours (Total, all aircraft), 40 hours (Total, this make and model), 40 hours (Last 90 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N2834J
Model/Series:	T188C T188C	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	T18803528T
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	April 15, 1983 100 hour	Certified Max Gross Wt.:	4400 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	760 Hrs	Engine Manufacturer:	CONTINENTAL
ELT:	Not installed	Engine Model/Series:	TS10-520-T
Registered Owner:	BOYD J. MORGAN	Rated Power:	310 Horsepower
Operator:		Operating Certificate(s) Held:	
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:	BZN ,4458 ft msl	Distance from Accident Site:	7 Nautical Miles
Observation Time:	10:50 Local	Direction from Accident Site:	270°
Lowest Cloud Condition:	Scattered / 15000 ft AGL	Visibility	20 miles
Lowest Ceiling:	Broken / 20000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	310°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	21°C / 9°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	00:00 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	Rough;Vegetation
Runway Used:	0	IFR Approach:	
Runway Length/Width:		VFR Approach/Landing:	

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	45.770339,-110.929069(est)

Administrative Information

Investigator In Charge (IIC): Winningham, Fred

**Additional Participating
Persons:**

Original Publish Date:

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=16122>

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