Aviation Investigation Final Report

Location:	SAINT ANTHONY, Idaho	**Accident Number:**	SEA97LA137
Date & Time:	June 12, 1997, 12:30 Local	**Registration:**	N7922V
Aircraft:	Aero Commander CALLAIR A-9B	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The aerial application pilot had completed 10 chemical application flights on the morning of the accident. After the first two flights, he had to reduce the volume of his load, because as the ambient temperature increased, the aircraft's performance began to deteriorate. After the tenth flight, the pilot took on another load of chemicals and refueled the aircraft. He then attempted a takeoff with a density altitude of approximately 6,930 feet. After liftoff, the aircraft would not fly out of ground effect, and after it passed the end of the runway, the aircraft began to descend. The pilot then elected to dump the chemical load in order to reduce the aircraft's weight. He therefore reached down to pull the jettison handle, but accidentally pulled the spray handle instead. By the time he realized his mistake, he only had time to flare for a landing. During the landing roll, the aircraft hit a dirt embankment and the main gear collapsed.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's improper planning/decision and failure to dump the load of chemicals. Related factors were: the high density altitude, and a dirt embankment that was encountered during the landing roll.

Findings

Occurrence #1: FORCED LANDING
Phase of Operation: TAKEOFF - ABORTED

Findings
1. (C) PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
2. (F) WEATHER CONDITION - HIGH DENSITY ALTITUDE
3. CLIMB - NOT POSSIBLE
4. (C) LOAD JETTISON - NOT ATTAINED - PILOT IN COMMAND

Occurrence #2: GEAR COLLAPSED
Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Findings
5. (F) TERRAIN CONDITION - DIRT BANK/RISING EMBANKMENT
6. LANDING GEAR,MAIN GEAR - OVERLOAD

Factual Information

On June 12, 1997, approximately 1230 mountain daylight time, an Aero Commander Callair A-9B, N7922V, impacted the terrain during the landing roll, after a forced landing during a takeoff from Stanford Field, Saint Anthony, Idaho. The commercial pilot, who was the sole occupant, was not injured, but the aircraft, which was owned and operated by the pilot, sustained substantial damage. The 14 CFR Part 137 aerial application flight was operating in visual meteorological condition, and no flight plan had been filed.

According to the pilot, he had flown 10 application flights on the morning of the accident. After the first two, he had to reduce his load from 80 gallons to 70 gallons because the aircraft's performance began deteriorating as the ambient temperature increased. After the tenth load, the pilot added another load of chemicals to the hopper, and then refueled the aircraft. He then attempted to take off in order to complete another application. He said that the aircraft would not climb out of ground-effect so he did a quick magneto check, but that did not seem to be the problem. As he tried to get the aircraft to climb out of ground effect, the airspeed slowed, and he decided he should jettison the load. He therefore reached down to pull the load jettison handle, but accidentally pulled the spray handle instead. By the time he realized his error, the sink rate had increased, and he only had time to flare the aircraft prior to contacting the ground. The pilot made a successful touchdown, but during the landing roll, the main gear hit a road embankment, and the both main gear collapsed.

According to the FAA inspector who interviewed the pilot, the pilot had recently completed an aerial application pilot course, and this was his second day acting as an aerial application pilot. At the time of the takeoff from the 4,000 foot long runway, the density altitude was approximately 6,930 feet.

Pilot Information

Certificate:	Commercial	**Age:**	39,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Rear
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 2 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	February 2, 1997
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	400 hours (Total, all aircraft), 54 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Aero Commander	**Registration:**	N7922V
Model/Series:	CALLAIR A-9B CALLAIR A-	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Restricted (Special)	**Serial Number:**	1561
Landing Gear Type:	Tailwheel	**Seats:**	0
Date/Type of Last Inspection:	Annual	**Certified Max Gross Wt.:**	3400 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Lycoming
ELT:	Not installed	**Engine Model/Series:**	IO-540-S
Registered Owner:	GRANT, KEVIN	**Rated Power:**	290 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:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	30 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	190°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(U12)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	12:30 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	STANFORD FIELD U12	**Runway Surface Type:**	Asphalt
Airport Elevation:	4966 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	22	**IFR Approach:**	
Runway Length/Width:	4000 ft / 50 ft	**VFR Approach/Landing:**	Forced 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:**	43.980167,-111.790367(est)

Administrative Information

Investigator In Charge (IIC):	Anderson, Orrin
Additional Participating Persons:	DARON MALMBORG; SALT LAKE CITY , UT
Original Publish Date:	May 29, 1998
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=42628