



Aviation Investigation Final Report

Location:	TEHACHAPI, California	Accident Number:	LAX93LA313
Date & Time:	August 3, 1993, 17:30 Local	Registration:	N95907
Aircraft:	TAYLORCRAFT BC-12D	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE PILOT WAS A TOW PLANE PILOT FOR SAILPLANES. ACCORDING TO HIS LOG BOOK, HE HAD PERFORMED 14 TOWS DURING THE DAY OF THE ACCIDENT. DURING THE DAY HE HAD BORROWED SOME FUEL CONTAINERS TO PURCHASE AUTOMOBILE FUEL. HE THEN PLANNED TO DEPART IN THE EARLY EVENING FOR A CROSS-COUNTRY FLIGHT OF ABOUT 2 HRS. THE AIRPLANE DID NOT HAVE AN ELECTRICAL SYSTEM OR LIGHTS. DURING THE INITIAL CLIMB, THE ENGINE QUIT. WITNESSES OBSERVED THE AIRPLANE START TO TURN BACK TOWARD THE RUNWAY, AT WHICH TIME THE NOSE DROPPED AND THE AIRPLANE IMPACTED THE GROUND IN ABOUT AN 80 DEG NOSE-DOWN ATTITUDE. WRECKAGE EXAMINATION REVEALED THAT ALL 3 FUEL SELECTOR VALVES WERE IN THE OFF POSITION. THE AIRPLANE WAS ABOUT 29 LBS OVER MAX GROSS WEIGHT, AND THE AFT CENTER OF GRAVITY LIMIT WAS EXCEEDED BY ABOUT 0.5 INCHES. WITNESSES STATED THAT THE PILOT DID NOT PERFORM A RUNUP OR MAGNETO CHECK PRIOR TO TAKEOFF, AND THE ENGINE SOUNDED AS THOUGH IT WAS NOT DEVELOPING POWER.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: FUEL STARVATION DUE TO THE PILOT'S FAILURE TO CORRECTLY POSITION THE FUEL SELECTOR PRIOR TO DEPARTURE, AND HIS FAILURE TO MAINTAIN AN ADEQUATE AIRSPEED MARGIN ABOVE STALL WHILE ATTEMPTING TO RETURN TO THE RUNWAY. FACTORS IN THE ACCIDENT WERE: THE PILOT'S FAILURE TO PERFORM A PREFLIGHT CHECK OR USE A PRETAKEOFF CHECKLIST, HIS FAILURE TO PROPERLY LOAD THE AIRCRAFT WITHIN THE ALLOWABLE WEIGHT AND CENTER OF GRAVITY LIMITS, AND PRESSURE TO COMPLETE THE FLIGHT PRIOR TO DARKNESS.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL

Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (F) CHECKLIST - NOT FOLLOWED - PILOT IN COMMAND
2. (C) FLUID,FUEL - STARVATION
3. (C) FUEL TANK SELECTOR POSITION - IMPROPER - PILOT IN COMMAND
4. (F) SELF-INDUCED PRESSURE - PILOT IN COMMAND

Occurrence #2: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

Findings

5. (F) AIRCRAFT WEIGHT AND BALANCE - IMPROPER - PILOT IN COMMAND
6. (C) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
7. STALL/SPIN - INADVERTENT - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

On August 3, 1993, about 1730 hours Pacific daylight time, a Taylorcraft BC-12-D, N95907, collided with terrain while attempting a return to runway maneuver at the Mountain Valley Airport, Tehachapi, California. The return to runway attempt was precipitated by a total loss of engine power during the takeoff initial climb. Visual meteorological conditions prevailed for the operation and a VFR flight plan was filed. The airplane was destroyed in the ground collision sequence and the commercial pilot, the sole occupant, sustained fatal injuries. The flight was originating at the time of the mishap as a personal cross country flight to Thermal, California.

The pilot was working as a tow plane pilot for sailplanes. According to his log book, he performed 14 tows during the day of the accident. During the day, the pilot borrowed some fuel containers to purchase automobile fuel for the Taylorcraft.

The airport manager reported during the initial accident notification that the aircraft experienced a loss of engine power during the takeoff and initial climb. The manager stated that the aircraft was attempting a return to runway maneuver when it apparently stalled in the turn and descended nose first to ground impact.

An FAA airworthiness inspector from the Van Nuys Flight Standards District Office responded to the accident site and examined the aircraft. He reported that he found the fuel selector valves in the "OFF" position.

The FAA inspector performed a weight and balance on the airplane and its contents at the time of the accident. According to the calculations, the airplanes weight at takeoff was 1,229 pounds with a most rearward center of gravity of 20.5 inches. According to the FAA Type Certificate Data, the maximum gross weight is 1,200 pounds with an aft center of gravity limit of 20.0 inches.

Further examination, according to the inspector, revealed that the pilot was using automobile gasoline and had borrowed gasoline containers earlier in the day to purchase gasoline at a local automobile station for the airplane. The airplane did not have a Supplemental Type Certificate for the use of automobile fuel and the carburetor did not have the manufacturers recommended needle valve to be compatible with automobile gasoline.

Pilot Information

Certificate:	Commercial	Age:	31, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	May 25, 1993
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	615 hours (Total, all aircraft), 85 hours (Total, this make and model), 467 hours (Pilot In Command, all aircraft), 104 hours (Last 90 days, all aircraft), 38 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	TAYLORCRAFT	Registration:	N95907
Model/Series:	BC-12D BC-12D	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	8207
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	July 13, 1993 Annual	Certified Max Gross Wt.:	1200 lbs
Time Since Last Inspection:	13 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	1260 Hrs	Engine Manufacturer:	CONTINENTAL
ELT:	Installed, not activated	Engine Model/Series:	A-65-8
Registered Owner:	WILLIAM B. NOBLIN	Rated Power:	65 Horsepower
Operator:	DAVID B. JOHNSON	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:	WJF ,2347 ft msl	Distance from Accident Site:	27 Nautical Miles
Observation Time:	18:46 Local	Direction from Accident Site:	140°
Lowest Cloud Condition:	Clear	Visibility	40 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	230°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	32°C / 11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	VFR
Destination:	THERMAL , CA (TRM)	Type of Clearance:	None
Departure Time:	17:30 Local	Type of Airspace:	Class G

Airport Information

Airport:	MOUNTAIN VALLEY L94	Runway Surface Type:	Gravel
Airport Elevation:	4220 ft msl	Runway Surface Condition:	Dry
Runway Used:	27R	IFR Approach:	
Runway Length/Width:	5190 ft / 60 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	35.119976,-118.510124(est)

Administrative Information

Investigator In Charge (IIC):	Petterson, George
Additional Participating Persons:	DICK WOLF; VAN NUYS , CA MIKE GRIMES; MOBILE , AL
Original Publish Date:	September 30, 1994
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=28441

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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](#).