Aviation Investigation Final Report

Location:	LOS BANOS, California	**Accident Number:**	LAX95LA170
Date & Time:	April 22, 1995, 17:58 Local	**Registration:**	N4928A
Aircraft:	CESSNA 180	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE AIRCRAFT LOST POWER IN THE PATTERN, LANDED SHORT OF THE RUNWAY, AND COLLIDED WITH A WALL. THE AIRPLANE FUEL SYSTEM WAS NOT COMPROMISED DURING THE IMPACT SEQUENCE AND THERE WAS NO EVIDENCE OF LEAKAGE FOUND. ABOUT 4 GALLONS OF 80/87 OCTANE AVIATION GASOLINE WAS DRAINED FROM THE LEFT WING FUEL TANK. THE FUSELAGE TANK AND THE RIGHT WING TANK WERE EMPTY. NO FUEL WAS FOUND IN THE LINE FROM THE FUEL SELECTOR TO THE CARBURETOR. THERE WAS A TRACE OF FUEL FOUND IN THE ENGINE PRIMER SYSTEM. THE PILOT OPERATING HANDBOOK FOR THE CESSNA 180 LISTS THE FUEL CAPACITY OF THE WING BLADDER TANKS AS 32.5 GALLONS, OF WHICH 27.5 GALLONS ARE USABLE. AN ADDITIONAL 3.5 GALLONS OF THE 5 GALLONS UNUSABLE CAN BE USED 'FOR LEVEL FLIGHT ONLY.' THE FUEL TANKS HAVE OUTLET PORTS IN THE REAR INBOARD CORNER ONLY.

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 inadequate preflight planning and preparation.

Findings

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

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings
3. OBJECT - WALL/BARRICADE

Factual Information

On April 22, 1995, at 1758 hours Pacific daylight time, a Cessna 180, N4928A, lost power and landed short of runway 30, colliding with a wall in Los Banos, California. The certificated airline transport pilot, the sole occupant, was not injured. The airplane was substantially damaged. The airplane was being operated by the pilot/owner as a personal flight. Visual meteorological conditions prevailed at the time.

The airplane was examined by the Federal Aviation Administration (FAA) on April 28, 1995, at the Los Banos Municipal Airport. The airplane was found in a left wing-low attitude, resting on its belly. The airplane fuel system was not compromised during the impact sequence and there was no evidence of leakage found. The fuel selector was in the "BOTH" position.

About 4 gallons of 80/87 octane aviation gasoline was drained from the left wing fuel tank. The fuselage tank and the right wing tank were found empty. There was no fuel found in the fuel line from the fuel selector to the carburetor. There was a trace of fuel found in the engine primer system.

The airplane main landing gear was sheared off after the loss of power as a result of collision with the top of a brick wall. The airplane came to rest on a lawn. The local fire department was dispatched to the accident scene and stayed with the airplane until after it was transported to the airport. The plane was hoisted by lifting eyes located on the top of the cabin roof. According to local fire department officials, there was no evidence of fuel leaking at the accident scene or during transport. One firemen indicated he did not smell any aroma of fuel at the accident site.

The pilot operating handbook for the Cessna 180 lists the fuel capacity of the wing bladder tanks as 32.5 gallons, each of which 27.5 gallons are usable. Of the 5 gallons unusable in each tank, 3.5 gallons can be used "for level flight only."

According to the illustrated parts manual for the Cessna 180, there is a single fuel outlet supplying fuel to the fuel selector valve. The outlet is located on the inboard end of the fuel bladder aft of the fuel gauge. The fuel gauge is located midpoint between the front and aft edges of the fuel bladder.

Pilot Information

Certificate:	Airline transport	**Age:**	64,Male
Airplane Rating(s):	Single-engine land; Multi-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:**	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	May 27, 1994
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	21000 hours (Total, all aircraft), 950 hours (Total, this make and model), 20000 hours (Pilot In Command, all aircraft), 12 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	**Registration:**	N4928A
Model/Series:	180 180	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	32325
Landing Gear Type:	Tailwheel	**Seats:**	4
Date/Type of Last Inspection:	April 8, 1994 Annual	**Certified Max Gross Wt.:**	2550 lbs
Time Since Last Inspection:	25 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	3451 Hrs	**Engine Manufacturer:**	CONTINENTAL
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	O-470-K1B
Registered Owner:	MARVIN H. WOLLF	**Rated Power:**	230 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:	MOD ,97 ft msl	**Distance from Accident Site:**	34 Nautical Miles
Observation Time:	18:58 Local	**Direction from Accident Site:**	338°
Lowest Cloud Condition:	Clear	**Visibility**	25 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	20°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	23°C / 6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	SHAFTER , CA (MIT)	**Type of Flight Plan Filed:**	None
Destination:	(LSN)	**Type of Clearance:**	None
Departure Time:	19:10 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	LOS BANOS MUNICIPAL LSN	**Runway Surface Type:**	Asphalt
Airport Elevation:	119 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	32	**IFR Approach:**	None
Runway Length/Width:	3005 ft / 75 ft	**VFR Approach/Landing:**	Forced landing;Traffic pattern

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:**	37.070152,-120.839157(est)

Administrative Information

Investigator In Charge (IIC):	Wilcox, Thomas
Additional Participating Persons:	GENE BERGER; FRESNO , CA
Original Publish Date:	September 24, 1995
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=29080

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