# Aviation Investigation Final Report

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| **Location:** | LAS VEGAS, Nevada | **Accident Number:** | LAX00LA265 |
| **Date & Time:** | July 14, 2000, 20:47 Local | **Registration:** | N738XP |
| **Aircraft:** | Cessna TR182 | **Aircraft Damage:** | Substantial |
| **Defining Event:** | | **Injuries:** | 1 Serious, 2 Minor |
| **Flight Conducted Under:** | Part 91: General aviation - Personal | | |

## Analysis

According to the pilot's logbook, on July 10, the pilot flew the accident airplane for 1.8 hours for the start of a formal checkout with a flight instructor. According to refueling records, the accident airplane was topped off with fuel on July 13, at a Hobbs meter reading of 4,042.0 hours. On July 14, the pilot completed his checkout with the instructor in the accident airplane within 42 minutes and 4 landings. According to the Hobbs meter reading at the accident site (4,046.6), the airplane had operated 4.6 hours since refueling. The Cessna Aircraft Company Information Manual's endurance profile states that the endurance will be 5.3 hours. The example profile flight is at 18,000 feet msl, 75 percent engine power at maximum takeoff weight, and proper leaning of the fuel/air mixture. According to flight plan information, the pilot listed an en route flight time of 3 hours 15 minutes, with 5.0 hours fuel onboard. The pilot filed for an en route altitude of 20,000 feet msl. The loss of engine power occurred during approach to landing. According to an FAA inspector on scene the fuel tanks were empty.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to refuel the airplane and his improper fuel consumption calculations.

### Findings

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

Findings
1. (C) FLUID,FUEL - EXHAUSTION
2. TERRAIN CONDITION - NONE SUITABLE
3. (C) FUEL CONSUMPTION CALCULATIONS - IMPROPER - PILOT IN COMMAND
4. (C) REFUELING - NOT PERFORMED - PILOT IN COMMAND
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Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

## Factual Information

On July 14, 2000, about 2047 hours Pacific daylight time, a Cessna TR182, N738XP, collided with telephone wires and poles during a forced landing on a city street while on final approach to McCarran International Airport, Las Vegas, Nevada. The forced landing was precipitated by a total loss of engine power. The airplane was operated by Flatirons Aviation of Boulder, Colorado, and rented by the pilot for a cross-country flight. The airplane was substantially damaged during the collision sequence. The private pilot received serious injuries and two passengers received minor injuries. Visual meteorological conditions prevailed for the personal flight conducted under 14 CFR Part 91, and an IFR flight plan was filed. The flight originated at Boulder about 1630.

According to the pilot's logbook, on July 10, the pilot flew the accident airplane for 1.8 hours for the start of a formal checkout with a flight instructor. According to refueling records, the accident airplane was topped off with fuel on July 13, at a Hobbs meter reading of 4,042.0 hours. On July 14, he completed his checkout with the instructor in the accident airplane within 42 minutes and 4 landings. According to the Hobbs meter reading at the accident site (4,046.6), the airplane had operated 4.6 hours since refueling. The Cessna Aircraft Company Information Manual's endurance profile states that the endurance will be 5.3 hours. The example profile flight is at 18,000 feet msl, 75 percent engine power at maximum takeoff weight, and proper leaning of the fuel/air mixture.

According to flight plan information, the pilot listed an en route flight time of 3 hours 15 minutes, with 5.0 hours fuel onboard. The pilot filed for an en route altitude of 20,000 feet msl. The loss of engine power occurred during approach to landing. According to a Federal Aviation Administration inspector on scene, the fuel tanks were empty. During postaccident examination of the airplane the engine was provided fuel and successfully run.

Neither the pilot nor the operator returned the Safety Board Pilot/Operator Aircraft Accident Report, form 6120.1/2.

## Pilot Information

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| **Certificate:** | Private | **Age:** | 20,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:** | No |
| **Medical Certification:** | Class 1 Valid Medical--no waivers/lim. | **Last FAA Medical Exam:** | September 15, 1998 |
| **Occupational Pilot:** | No | **Last Flight Review or Equivalent:** | |
| **Flight Time:** | 272 hours (Total, all aircraft) | | |

## Aircraft and Owner/Operator Information

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| **Aircraft Make:** | Cessna | **Registration:** | N738XP |
| **Model/Series:** | TR182 TR182 | **Aircraft Category:** | Airplane |
| **Year of Manufacture:** | | **Amateur Built:** | |
| **Airworthiness Certificate:** | Normal | **Serial Number:** | R18200974 |
| **Landing Gear Type:** | Retractable - Tricycle | **Seats:** | 4 |
| **Date/Type of Last Inspection:** | Unknown | **Certified Max Gross Wt.:** | 3350 lbs |
| **Time Since Last Inspection:** | | **Engines:** | 1 Reciprocating |
| **Airframe Total Time:** | | **Engine Manufacturer:** | Lycoming |
| **ELT:** | Installed | **Engine Model/Series:** | O-540-L3C5D |
| **Registered Owner:** | DAVIS, LAWRENCE R. | **Rated Power:** | 235 Horsepower |
| **Operator:** | FLATIRONS AVIATION | **Operating Certificate(s) Held:** | None |
| **Operator Does Business As:** | | **Operator Designator Code:** | |

## Meteorological Information and Flight Plan

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| **Conditions at Accident Site:** | Visual (VMC) | **Condition of Light:** | Day |
| **Observation Facility, Elevation:** | LAS ,2177 ft msl | **Distance from Accident Site:** | 1 Nautical Miles |
| **Observation Time:** | 21:03 Local | **Direction from Accident Site:** | 190° |
| **Lowest Cloud Condition:** | Scattered / 16000 ft AGL | **Visibility** | 10 miles |
| **Lowest Ceiling:** | None | **Visibility (RVR):** | |
| **Wind Speed/Gusts:** | 10 knots / | **Turbulence Type Forecast/Actual:** | / |
| **Wind Direction:** | 230° | **Turbulence Severity Forecast/Actual:** | / |
| **Altimeter Setting:** | 29 inches Hg | **Temperature/Dew Point:** | 97°C / 41°C |
| **Precipitation and Obscuration:** | No Obscuration; No Precipitation | | |
| **Departure Point:** | BOULDER , CO (1V5 ) | **Type of Flight Plan Filed:** | VFR |
| **Destination:** | (LAS ) | **Type of Clearance:** | IFR |
| **Departure Time:** | 16:30 Local | **Type of Airspace:** | Class B |

## Airport Information

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| **Airport:** | | **Runway Surface Type:** | |
| **Airport Elevation:** | | **Runway Surface Condition:** | |
| **Runway Used:** | 0 | **IFR Approach:** | |
| **Runway Length/Width:** | | **VFR Approach/Landing:** | Forced landing |

## Wreckage and Impact Information

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

## Administrative Information

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| **Investigator In Charge (IIC):** | Petterson, George |
| **Additional Participating Persons:** | KIP SHOEMAKER; LAS VEGAS , NV |
| **Original Publish Date:** | November 1, 2001 |
| **Last Revision Date:** | |
| **Investigation Class:** | Class |
| **Note:** | The NTSB traveled to the scene of this accident. |
| **Investigation Docket:** | https://data.ntsb.gov/Docket?ProjectID=49713 |