



# Aviation Investigation Final Report

<b>Location:</b>	TRUCKEE, California	<b>Accident Number:</b>	LAX97LA012
<b>Date &amp; Time:</b>	October 8, 1996, 20:45 Local	<b>Registration:</b>	N7833Q
<b>Aircraft:</b>	Cessna 310Q	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Serious
<b>Flight Conducted Under:</b>	Part 91: General aviation		

## Analysis

While turning on the final approach, with the landing gear extended, the pilot switched the fuel tanks' selector handles from the auxiliary fuel tanks to the main fuel tanks. Shortly thereafter, both engines sustained a total loss of power. The pilot turned on the boost pumps to restart both engines, but without success. During the ensuing emergency landing, the pilot did not retract the landing gear or feather both propellers. The airplane landed about 450 feet short of the runway. The postaccident examination of the airplane disclosed that both main fuel tanks were empty. Neither the main fuel tanks nor their associated components were compromised during the impact sequence.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's inadequate preflight planning/preparation and fuel consumption calculations resulting in fuel exhaustion. The pilot's failure to switch the fuel tanks to the auxiliary position and feather both propellers were factors.

## Findings

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

- Findings  
1. ALL ENGINES

2. (C) FLUID,FUEL - EXHAUSTION
  3. (C) PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
  4. (C) FUEL CONSUMPTION CALCULATIONS - INADEQUATE - PILOT IN COMMAND
  5. (F) EMERGENCY PROCEDURE - IMPROPER - PILOT IN COMMAND
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Occurrence #2: FORCED LANDING  
Phase of Operation: EMERGENCY DESCENT/LANDING  
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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: EMERGENCY DESCENT/LANDING

## Factual Information

On October 8, 1996, at 2045 hours Pacific daylight time, a Cessna 310Q, N7833Q, crashed about 450 feet east of runway 28 at Truckee-Tahoe Airport, Truckee, California. The pilot was completing a visual flight rules personal flight. The airplane, registered to and operated by the pilot, sustained substantial damage. The certificated commercial pilot, the sole occupant, received serious injuries. Visual meteorological conditions prevailed. The flight originated at Reno International Airport, Reno, Nevada, about 2030.

Safety Board investigators interviewed the pilot via telephone on October 8, 1996. The pilot said that when he was on the downwind leg of runway 28, he became preoccupied with the radios and forgot to switch the fuel tanks' selector handles from the auxiliary tanks to the main tanks. After he switched the fuel selector handles to the main tanks, both engines lost power. He attempted to restart the engines, but without success. The airplane's altitude was insufficient to make the airport and he landed short of the runway.

The pilot also told the investigating FAA inspector from the Reno Flight Standards District Office that after both engines lost power, he turned on the boost pumps. He said that he didn't feather the propellers or retract the landing gear and was unable to extend the glide to the runway.

The FAA inspector reported that he did not find any fuel in the main fuel tanks. He also said that the main fuel tanks and their associated components were not compromised during the impact sequence.

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	71, Male
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	April 16, 1996
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	7753 hours (Total, all aircraft), 5180 hours (Total, this make and model), 7591 hours (Pilot In Command, all aircraft), 18 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N7833Q
<b>Model/Series:</b>	310Q 310Q	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	310Q0615
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	October 2, 1996 Annual	<b>Certified Max Gross Wt.:</b>	5300 lbs
<b>Time Since Last Inspection:</b>	4 Hrs	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	3600 Hrs	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	IO-470-VO
<b>Registered Owner:</b>	WINTHROP G. DALE, DVM	<b>Rated Power:</b>	260 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>	SILVER HILLS ENTERPRISES	<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Night/bright
<b>Observation Facility, Elevation:</b>	TRK ,5900 ft msl	<b>Distance from Accident Site:</b>	1 Nautical Miles
<b>Observation Time:</b>	20:50 Local	<b>Direction from Accident Site:</b>	280°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	0°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	14°C / 1°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	RENO , NV (RNO )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	(TRK )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	20:30 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	TRUCKEE-TAHOE TRK	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	5900 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	28	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	7000 ft / 100 ft	<b>VFR Approach/Landing:</b>	Traffic pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Serious	<b>Latitude, Longitude:</b>	

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Llorente, A.
<b>Additional Participating Persons:</b>	J. WOODS; RENO , NV
<b>Original Publish Date:</b>	September 5, 1997
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=29660">https://data.nts.gov/Docket?ProjectID=29660</a>

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