Aviation Investigation Final Report

Location:	So Lake Tahoe, California	**Accident Number:**	LAX01LA177
Date & Time:	May 13, 2001, 16:50 Local	**Registration:**	N464SR
Aircraft:	Beech E33A	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	4 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

During the pretakeoff check, the pilot observed that a mechanical malfunction existed with the vernier control button on the throttle knob. It had partially unscrewed. The pilot attempted to remedy the situation by screwing the knob back into place, and then he commenced the takeoff. The airplane was loaded at or within 240 pounds of its certificated maximum gross weight, and the density altitude was about 7,700 feet. The airplane accelerated, lifted off the ground, and gained about 30 feet. The pilot had not received dual instruction in the airplane in high density altitude procedures, and he was not experienced in this type of operation. Believing that the rate of climb was inhibited due to a downdraft, and with the wings rocking back and forth on the verge of stalling, the pilot retracted the landing gear in an effort at increasing the climb rate. Still dissatisfied with the airplane's inability to climb, the pilot retarded the throttle to abort the takeoff. He then tried to lower the landing gear. When the pilot attempted to increase the throttle to provide more time for the gear to extend, the throttle control knob jammed due to the improperly secured screw. The airplane impacted the runway with partially extended landing gear, and slid to a stop about 1,500 feet before reaching its departure end.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper aircraft handling and decision to prematurely raise the landing gear during takeoff. Contributing factors were his lack of experience taking off under the high density

altitude condition and his improper maintenance.

Findings

Occurrence #1: WHEELS UP LANDING
Phase of Operation: TAKEOFF - ABORTED

Findings
1. THROTTLE/POWER LEVER,PUSH/PULL ROD - JAMMED
2. (F) MAINTENANCE - IMPROPER - PILOT IN COMMAND
3. (F) WEATHER CONDITION - HIGH DENSITY ALTITUDE
4. (C) PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
5. GEAR RETRACTION - INTENTIONAL - PILOT IN COMMAND
6. (F) LACK OF TOTAL EXPERIENCE IN TYPE OPERATION - PILOT IN COMMAND
7. (C) AIRCRAFT HANDLING - IMPROPER - PILOT IN COMMAND
8. ABORTED TAKEOFF - INTENTIONAL - PILOT IN COMMAND

Factual Information

HISTORY OF FLIGHT:

On May 13, 2001, about 1650 hours Pacific daylight time, a Beech E33A, N464SR, impacted the runway during an aborted takeoff from the Lake Tahoe Airport, South Lake Tahoe, California. At the time of the mishap, the airplane's landing gear was in transit to the extended position. The airplane was substantially damaged. Neither the private pilot nor the three passengers was injured. The pilot had rented the airplane from South Bay Aviation, Inc., Torrance, California. Visual meteorological conditions prevailed, and no flight plan was filed for the personal flight that was performed under 14 CFR Part 91. The flight was originating at the time of the accident.

According to the front right-seated pilot-rated passenger, during the pretakeoff check, the pilot observed a mechanical malfunction with the throttle control knob. The pilot stated to the passenger "look at this," and he showed the passenger the loose vernier control button on the throttle knob. The passenger indicated that he observed the pilot screw the vernier control back into position. Then, the pilot proceeded to takeoff.

The pilot indicated to the National Transportation Safety Board investigator that he initiated the takeoff roll from the beginning of runway 18. The airplane accelerated normally, and he felt the effect of the strong gusty wind. In an effort at increasing the airplane's rate of climb, the pilot indicated that he retracted the landing gear. Then, the airplane was pushed toward the ground by a strong downdraft. The pilot-rated passenger reported that he heard a horn going off in the cockpit.

A witness reported observing the airplane with its landing gear retracted and its wings rocking up and down. At the time, the airplane was about midfield, and approximately 30 feet above the runway's surface.

The pilot subsequently reported to the Safety Board investigator that he aborted the takeoff because he was "not satisfied with the rate of climb." The pilot indicated that he retarded the throttle and attempted to lower the landing gear. When it became evident that the airplane would touchdown before the gear was extended, he attempted to push the throttle forward but was unable. The pilot said it was stuck.

The airplane impacted the runway with the landing gear partially extended. It slid about 500 feet before coming to a stop about 1,500 feet before reaching the runway's departure end. Responding rescue personnel stated that luggage was observed inside the airplane. There was no fire.

AIRPLANE MAINTENANCE REPORT:

On May 12, the pilot departed from Torrance. The last pilot to fly the airplane prior to the accident pilot's departure reported that he had not experienced any malfunctions in the airplane. A review of the airplane's maintenance records revealed no outstanding squawks or open maintenance items at the time of the accident pilot's departure from Torrance. When the pilot rented the airplane, the recording engine tachometer registered 615.75 hours. At the time of the accident, it registered 620.37 hours.

AIRPLANE WEIGHT:

The Federal Aviation Administration (FAA) certificated maximum gross weight for the accident airplane is 3,300 pounds. The operator reported that the airplane's empty weight is 2,056.5 pounds. The FAA reported that the pilot's weight (as of August, 2000) was 178 pounds. The pilot-rated passenger reported his weight is 176 pounds, his girl friend's weight is about 150 pounds, and weight of the pilot's wife is about 170 pounds. The weight of their luggage was not indicated. The pilot reported that 55 gallons of fuel were in the airplane's fuel tanks (about 330 pounds). Based upon this data, the Safety Board investigator calculates that, at the time of the accident, the airplane was operated at or within 240 pounds of its maximum gross weight.

AIRPLANE WRECKAGE EXAMINATION:

Under the Safety Board investigator's direction, an FAA certificated mechanic examined the airplane's throttle assembly. According to the mechanic, the screw on its vernier control button was found loose (unscrewed) by 8.5 complete turns. With the screw loose, the throttle's release button was not held in place and created interference with the throttle's movement. No other irregularities were noted with the throttle assembly. When the screw was tightened, the throttle, vernier control, and cable assembly system functioned normally.

AIRPORT AND METEOROLOGICAL INFORMATION:

The airport's elevation is 6,264 feet mean sea level. Runway 18 is 8,544 feet long. At 1653, the airport reported its surface wind was from 210 degrees, at 8 knots. No gusts were reported. The temperature was 63 degrees Fahrenheit. The calculated density altitude was approximately 7,700 feet.

ADDITIONAL INFORMATION:

Management at the fixed base operator (FBO) reported to the Safety Board investigator that its rental records did not indicate the pilot had received a high density altitude checkout in either the accident airplane, or in any other model of rental airplane from its company.

The pilot's personal flight record logbook did not reveal that he had received any dual flight

instruction in high density altitude takeoff procedures in the model of accident airplane. Also, no evidence was observed of the pilot ever having taken off in an airplane from any airport having a density altitude at or above 7,700 feet.

Pilot Information

Certificate:	Private	**Age:**	45,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 None	**Last FAA Medical Exam:**	August 4, 2000
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	August 17, 2000
Flight Time:	283 hours (Total, all aircraft), 30 hours (Total, this make and model), 209 hours (Pilot In Command, all aircraft), 28 hours (Last 90 days, all aircraft), 23 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	**Registration:**	N464SR
Model/Series:	E33A	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	CE-275
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	March 18, 2001 100 hour	**Certified Max Gross Wt.:**	3300 lbs
Time Since Last Inspection:	38 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Continental
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	IO-520-B
Registered Owner:	Calwest Investment Group LLC	**Rated Power:**	285 Horsepower
Operator:	South Bay Aviation, Inc.	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	TVL,6264 ft msl	**Distance from Accident Site:**	0 Nautical Miles
Observation Time:	16:53 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	8 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	210°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.12 inches Hg	**Temperature/Dew Point:**	17°C / 1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	So Lake Tahoe, CA (TVL)	**Type of Flight Plan Filed:**	None
Destination:	SAN JOSE, CA (RHV)	**Type of Clearance:**	VFR
Departure Time:		**Type of Airspace:**	Class D

Airport Information

Airport:	Lake Tahoe TVL	**Runway Surface Type:**	Asphalt
Airport Elevation:	6264 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	18	**IFR Approach:**	Unknown
Runway Length/Width:	8544 ft / 150 ft	**VFR Approach/Landing:**	Unknown

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	3 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	4 None	**Latitude, Longitude:**	38.89389,-119.995277

Administrative Information

Investigator In Charge (IIC):	Pollack, Wayne
Additional Participating Persons:	Gary Hamlin; WP-FSDO; Reno, NV
Original Publish Date:	July 15, 2002
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=52300