



# Aviation Investigation Final Report

<b>Location:</b>	MARANA, Arizona	<b>Accident Number:</b>	LAX97LA041
<b>Date &amp; Time:</b>	November 14, 1996, 11:25 Local	<b>Registration:</b>	N1567P
<b>Aircraft:</b>	Beech F33A	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

## Analysis

The flight instructor reported that following some air work, the flight proceeded to the Avra Valley Airport where two touch-and-go landings were accomplished, followed by a full stop landing. The student taxied the aircraft back for takeoff, and the instructor took control to demonstrate procedures for an engine failure during the takeoff initial climb. The instructor stated that following a high performance takeoff, 'the airplane climbed to 50 to 100' AGL, at which time I smoothly reduced throttle to idle and lowered nose below level pitch. Airplane began to descend rapidly and I realized that the sink rate was quite large. I applied full throttle and raised nose to attempt to reduce sink. The airplane impacted the ground in approx. level attitude, the nose gear collapsed and the plane slid to a stop in approximately a few hundred feet.' The temperature was reported to be 81 degrees Fahrenheit. Based upon this temperature and the estimated pressure altitude, the density altitude was calculated to be 3,892 feet.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: improper planning/decision by the flight instructor (CFI), which resulted in his failure to recover from a descent during demonstration of a simulated (engine-out) emergency procedure.

## Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: TAKEOFF

#### Findings

1. WEATHER CONDITION - HIGH DENSITY ALTITUDE
2. EMERGENCY PROCEDURE - SIMULATED - PILOT IN COMMAND(CFI)
3. (C) PLANNING/DECISION - IMPROPER - PILOT IN COMMAND(CFI)
4. (C) DESCENT - NOT CORRECTED - PILOT IN COMMAND(CFI)

## Factual Information

On November 14, 1996, at 1125 hours mountain standard time, a Beech F33A, N1567P, collapsed the landing gear and damaged the wings during a hard landing at the Avra Valley, Arizona airport. The aircraft was owned and operated by Air Transport Training International, Inc., of Tucson, Arizona, and was engaged in a dual primary instructional flight. Visual meteorological conditions prevailed at the time and no flight plan was filed for the operation. The aircraft incurred substantial damage in the crash. The certificated airline transport pilot flight instructor and the dual primary student were not injured. The flight originated at the Ryan airport, Tucson, on the day of the accident at 1025.

In his written statement, the flight instructor reported that following some air work, the flight proceeded to the Avra Valley airport where two touch-and-go landings were accomplished, followed by a full-stop landing. The student taxied the aircraft back for takeoff and the instructor took control to demonstrate procedures for an engine failure during the takeoff initial climb. The instructor stated that following a high performance takeoff, "the airplane climbed to 50 to 100' AGL, at which time I smoothly reduced throttle to idle and lowered nose below level pitch. Airplane began to descend rapidly and I realized that the sink rate was quite large. I applied full throttle and raised nose to attempt to reduce sink. The airplane impacted the ground in approx. level attitude, the nose gear collapsed and the plane slid to a stop in approximately a few hundred feet."

The temperature at the time the accident occurred was 81 degrees Fahrenheit. Based upon this temperature and the estimated pressure altitude, the density altitude was calculated to be 3,892 feet msl.

## Pilot Information

<b>Certificate:</b>	Airline transport; Flight instructor	<b>Age:</b>	35, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	October 8, 1996
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	3367 hours (Total, all aircraft), 30 hours (Total, this make and model)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Beech	<b>Registration:</b>	N1567P
<b>Model/Series:</b>	F33A F33A	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal; Utility	<b>Serial Number:</b>	CE-1296
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	Continuous airworthiness	<b>Certified Max Gross Wt.:</b>	3400 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	IO-520-BB18B
<b>Registered Owner:</b>	AIR TRANSPORT TRAINING INT	<b>Rated Power:</b>	285 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Scattered / 18000 ft AGL	<b>Visibility</b>	40 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>	29 inches Hg	<b>Temperature/Dew Point:</b>	27°C / 1°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	MIRANA , AZ (E14)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	11:24 Local	<b>Type of Airspace:</b>	Class E

## Airport Information

<b>Airport:</b>	AVRA VALLEY E14	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	2031 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	12	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	6901 ft / 100 ft	<b>VFR Approach/Landing:</b>	Traffic pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 None	<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>	2 None	<b>Latitude, Longitude:</b>	32.450042,-111.289695(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Rich, Jeff
<b>Additional Participating Persons:</b>	EDDIE OCHOA; SCOTTSDALE , AZ
<b>Original Publish Date:</b>	August 21, 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=29684">https://data.nts.gov/Docket?ProjectID=29684</a>

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