Aviation Investigation Final Report

Location:	MARANA, Arizona	**Accident Number:**	LAX97LA041
Date & Time:	November 14, 1996, 11:25 Local	**Registration:**	N1567P
Aircraft:	Beech F33A	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 None
Flight Conducted Under:	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

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

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	**Registration:**	N1567P
Model/Series:	F33A F33A	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal; Utility	**Serial Number:**	CE-1296
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	Continuous airworthiness	**Certified Max Gross Wt.:**	3400 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Continental
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	IO-520-BB18B
Registered Owner:	AIR TRANSPORT TRAINING INT	**Rated Power:**	285 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:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:	Scattered / 18000 ft AGL	**Visibility**	40 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	0°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	27°C / 1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	MIRANA , AZ (E14)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	11:24 Local	**Type of Airspace:**	Class E

Airport Information

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

Wreckage and Impact Information

Crew Injuries:	2 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	32.450042,-111.289695(est)

Administrative Information

Investigator In Charge (IIC):	Rich, Jeff
Additional Participating Persons:	EDDIE OCHOA; SCOTTSDALE , AZ
Original Publish Date:	August 21, 1997
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=29684