



National Transportation Safety Board Aviation Accident Final Report

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| Location: | GRAND CANYON, AZ | Accident Number: | LAX90FA145 |
| Date & Time: | 04/13/1990, 1458 MST | Registration: | N91081 |
| Aircraft: | CESSNA T207 | Aircraft Damage: | Destroyed |
| Defining Event: | | Injuries: | 7 Serious |
| Flight Conducted Under: | Part 135: Air Taxi & Commuter - Non-scheduled | | |

Analysis

ACCORDING TO WITNESSES, THE ACFT WAS ABOUT TO TOUCHDOWN FROM A NORMAL APCH TO RWY 21, WHEN IT ENCOUNTERED VARIABLE WIND CONDS & BALLOONED TO ABOUT 70' AGL. THE PLT INITIATED A GO-AROUND. SHORTLY THEREAFTER, WITNESSES OBSERVED A PUFF OF SMOKE EMANATE FROM THE ACFT, THEN THE PLT TRANSMITTED THAT THE FLT WAS 'GOING DOWN.' SUBSEQUENTLY, THE ACFT COLLIDED WITH TREES ON WOODED TERRAIN ABOUT 1/2 MI FROM THE DEP END OF THE RWY. AN EXAM REVEALED A LACK OF POWER SIGNATURES ON THE PROP; EVIDENCE OF SOOTING WAS FOUND ON THE SPARK PLUGS (INDICATING A RICH MIXTURE). TESTING OF THE TURBO-CONTROLLER REVEALED EVIDENCE THAT IT HAD BEEN ADJUSTED TO A LOW SETTING; THE TURBO WOULD ONLY PRODUCE A MAXIMUM AIR FLOW EQUAL TO HIGH CRUISE POWER. THE ENG MANUFACTURER RPRTD THAT THIS SITUATION COULD PRODUCE AN OVER-RICH MIXTURE, PARTICULARLY IF THE THROTTLE AND/OR MIXTURE CONTROLS WERE IMPROPERLY MANIPULATED. THE PILOT LACKED EXPERIENCE IN ACFT WITH TURBO-CHARGED ENGS & HE WAS NOT TRAINED IAW THE COMPANY TRAINING PROGRAM.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: IMPROPER ADJUSTMENT OF THE TURBO-CHARGER ABSOLUTE PRESSURE CONTROLLER, AND IMPROPER MANIPULATION OF THE POWER PLANT CONTROLS BY THE PILOT DURING THE GO-AROUND. FACTORS RELATED TO THE ACCIDENT WERE: FAILURE OF COMPANY MANAGEMENT TO PROPERLY TRAIN THE PILOT IN ACCORDANCE WITH THE APPROVED COMPANY TRAINING PROGRAM, AND THE PILOT'S LACK OF EXPERIENCE IN TURBO-CHARGED ENGINE OPERATIONS.

Findings

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

Findings

1. (C) EXHAUST SYSTEM,TURBOCHARGER - INCORRECT
2. (C) MAINTENANCE,ADJUSTMENT - IMPROPER
3. (C) THROTTLE/POWER CONTROL - IMPROPER USE OF - PILOT IN COMMAND
4. (F) INADEQUATE TRAINING - COMPANY/OPERATOR MANAGEMENT
5. (F) LACK OF FAMILIARITY WITH AIRCRAFT - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: LANDING

Findings

6. (F) TERRAIN CONDITION - NONE SUITABLE
7. OBJECT - TREE(S)

Factual Information

Pilot Information

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|----------------------------------|--|-------------------------------|------------|
| Certificate: | Commercial | Age: | 24, Male |
| Airplane Rating(s): | Multi-engine Land; Single-engine Land | Seat Occupied: | Left |
| Other Aircraft Rating(s): | None | Restraint Used: | Seatbelt |
| 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: | 12/27/1989 |
| Occupational Pilot: | Last Flight Review or Equivalent: | | |
| Flight Time: | 555 hours (Total, all aircraft), 9 hours (Total, this make and model), 407 hours (Pilot In Command, all aircraft), 89 hours (Last 90 days, all aircraft), 43 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|--|---------------------------------------|--------------------------|
| Aircraft Manufacturer: | CESSNA | Registration: | N91081 |
| Model/Series: | T207 T207 | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | No |
| Airworthiness Certificate: | Normal | Serial Number: | 20700062 |
| Landing Gear Type: | Tricycle | Seats: | 7 |
| Date/Type of Last Inspection: | 03/31/1990, Continuous Airworthiness | Certified Max Gross Wt.: | 3800 lbs |
| Time Since Last Inspection: | 35 Hours | Engines: | 1 Reciprocating |
| Airframe Total Time: | 5325 Hours | Engine Manufacturer: | CONTINENTAL |
| ELT: | Installed, activated, did not aid in locating accident | Engine Model/Series: | TSIO-520-HCG |
| Registered Owner: | CHARLES B. BEAGLE | Rated Power: | 310 hp |
| Operator: | WINDROCK AVIATION | Operating Certificate(s) Held: | On-demand Air Taxi (135) |
| Operator Does Business As: | | Operator Designator Code: | WWNA |

Meteorological Information and Flight Plan

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|----------------------------------|----------------------------|-------------------------------|------------------|
| Conditions at Accident Site: | Visual Conditions | Condition of Light: | Day |
| Observation Facility, Elevation: | GCN, 6606 ft msl | Observation Time: | 1500 MST |
| Distance from Accident Site: | 0 Nautical Miles | Direction from Accident Site: | 0° |
| Lowest Cloud Condition: | Thin Broken / 25000 ft agl | Temperature/Dew Point: | 22° C / -2° C |
| Lowest Ceiling: | None / 0 ft agl | Visibility | 50 Miles |
| Wind Speed/Gusts, Direction: | 11 knots, 230° | Visibility (RVR): | 0 ft |
| Altimeter Setting: | 30 inches Hg | Visibility (RVV): | 0 Miles |
| Precipitation and Obscuration: | | | |
| Departure Point: | (GCN) | Type of Flight Plan Filed: | Company VFR |
| Destination: | (GCN) | Type of Clearance: | VFR |
| Departure Time: | 1400 MST | Type of Airspace: | Class D; Class E |

Airport Information

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|----------------------|--------------------|---------------------------|----------------------------|
| Airport: | GRAND CANYON (GCN) | Runway Surface Type: | Asphalt |
| Airport Elevation: | 6606 ft | Runway Surface Condition: | Dry |
| Runway Used: | 21 | IFR Approach: | None |
| Runway Length/Width: | 8999 ft / 150 ft | VFR Approach/Landing: | Go Around; Traffic Pattern |

Wreckage and Impact Information

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|---------------------|-----------|----------------------|-----------|
| Crew Injuries: | 1 Serious | Aircraft Damage: | Destroyed |
| Passenger Injuries: | 6 Serious | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 7 Serious | Latitude, Longitude: | |

Administrative Information

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|-----------------------------------|--|---------------|------------|
| Investigator In Charge (IIC): | JEFF RICH | Adopted Date: | 04/13/1992 |
| Additional Participating Persons: | FRED WEIR; LAS VEGAS, NV GARY WHITE; WICHITA, KS GEORGE HOLLINGSWORTH; MOBILE, AL | | |
| Publish Date: | | | |
| Investigation Docket: | NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ . | | |

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