



National Transportation Safety Board Aviation Accident Final Report

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

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

Aircraft Make:	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

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	GCN, 6606 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1500 MST	Direction from Accident Site:	0°
Lowest Cloud Condition:	Thin Broken / 25000 ft agl	Visibility	50 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	11 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	230°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	22° C / -2° C
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

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

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

Investigator In Charge (IIC):	JEFF RICH	Report 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 pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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