Analysis


Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: FATIGUE FAILURE OF THE TURBOCHARGER'S TURBINE SHAFT DUE TO INADEQUATE MAINTENANCE, AND THE PILOT'S IMPROPER IN-FLIGHT PLANNING/DECISION AFTER EXPERIENCING A TURBOCHARGER FAILURE. A FACTOR RELATED TO THE ACCIDENT WAS: THE LACK OF INFORMATION IN THE PILOT OPERATING HANDBOOK CONCERNING TURBOCHARGER FAILURE OR MALFUNCTION.
Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation: CRUISE

Findings
1. (C) EXHAUST SYSTEM, TURBOCHARGER - FATIGUE
2. (C) MAINTENANCE, OVERHAUL - INADEQUATE - OTHER MAINTENANCE PERSONNEL

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Occurrence #2: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: DESCENT - EMERGENCY

Findings
3. EMERGENCY PROCEDURE - INITIATED - PILOT IN COMMAND
4. (F) AIRCRAFT MANUALS, PROCEDURE INFORMATION - INADEQUATE
5. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
6. (F) INFORMATION INSUFFICIENT - MANUFACTURER

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Occurrence #3: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

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Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

Findings
7. TERRAIN CONDITION - ROUGH/UNEVEN
### Factual Information

#### History of Flight

#### Pilot Information

<table>
<thead>
<tr>
<th>Certificate:</th>
<th>Commercial</th>
<th>Age:</th>
<th>24, Male</th>
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</thead>
<tbody>
<tr>
<td>Airplane Rating(s):</td>
<td>Multi-engine Land; Single-engine Land</td>
<td>Seat Occupied:</td>
<td>Left</td>
</tr>
<tr>
<td>Other Aircraft Rating(s):</td>
<td>None</td>
<td>Restraint Used:</td>
<td>Seatbelt, Shoulder harness</td>
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<tr>
<td>Instrument Rating(s):</td>
<td>Airplane</td>
<td>Second Pilot Present:</td>
<td>No</td>
</tr>
<tr>
<td>Instructor Rating(s):</td>
<td>None</td>
<td>Toxicology Performed:</td>
<td>No</td>
</tr>
<tr>
<td>Medical Certification:</td>
<td>Class 2 Valid Medical--no waivers/lim.</td>
<td>Last FAA Medical Exam:</td>
<td>03/27/1991</td>
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<tr>
<td>Occupational Pilot:</td>
<td></td>
<td>Last Flight Review or Equivalent:</td>
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</tr>
<tr>
<td>Flight Time:</td>
<td>2039 hours (Total, all aircraft), 74 hours (Total, this make and model), 125 hours (Last 90 days, all aircraft), 26 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)</td>
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#### Aircraft and Owner/Operator Information

<table>
<thead>
<tr>
<th>Aircraft Manufacturer:</th>
<th>CESSNA</th>
<th>Registration:</th>
<th>N22592</th>
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<tbody>
<tr>
<td>Model/Series:</td>
<td>T210L T210L</td>
<td>Aircraft Category:</td>
<td>Airplane</td>
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<tr>
<td>Year of Manufacture:</td>
<td>Amateur Built:</td>
<td>Serial Number:</td>
<td>21059763</td>
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<tr>
<td>Airworthiness Certificate:</td>
<td>Normal</td>
<td>Seats:</td>
<td>6</td>
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<tr>
<td>Landing Gear Type:</td>
<td>Retractable - Tricycle</td>
<td>Certified Max Gross Wt.:</td>
<td>3800 lbs</td>
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<tr>
<td>Date/Type of Last Inspection:</td>
<td>01/05/1992, 100 Hour</td>
<td>Engines:</td>
<td>1 Reciprocating</td>
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<tr>
<td>Time Since Last Inspection:</td>
<td>12 Hours</td>
<td>Engine Manufacturer:</td>
<td>CONTINENTAL</td>
</tr>
<tr>
<td>Airframe Total Time:</td>
<td>1495 Hours</td>
<td>Engine Model/Series:</td>
<td>TSIO-520-H</td>
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<tr>
<td>ELT:</td>
<td>Installed, activated, did not aid in locating accident</td>
<td>Rated Power:</td>
<td>300 hp</td>
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<tr>
<td>Registered Owner:</td>
<td>AIR VEGAS</td>
<td>Operating Certificate(s) Held:</td>
<td>On-demand Air Taxi (135)</td>
</tr>
<tr>
<td>Operator:</td>
<td>AIR VEGAS</td>
<td>Operator Designator Code:</td>
<td>AJZA</td>
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<tr>
<td>Operator Does Business As:</td>
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</table>
### Meteorological Information and Flight Plan

**Conditions at Accident Site:**

- Visual Conditions
- Condition of Light: Day
- Observation Facility, Elevation: , 0 ft msl
- Observation Time: 0000
- Distance from Accident Site: 0 Nautical Miles
- Direction from Accident Site: 0°
- Lowest Cloud Condition: Clear / 0 ft agl
- Temperature/Dew Point:
- Lowest Ceiling: None / 0 ft agl
- Visibility: 20 Miles
- Wind Speed/Gusts, Direction:
- Visibility (RVR): 0 ft
- Altimeter Setting:
- Visibility (RVR): 0 Miles
- Precipitation and Obscuration:

**Departure Point:**

- GRAND CANYON, AZ (GCN)
- Type of Flight Plan Filed: Company VFR
- Destination: LAS VEGAS, NV (L15)
- Type of Clearance: None
- Departure Time: 1510 MST
- Type of Airspace: Class G

**Airport Information**

- Airport: TEMPLE BAR (U30)
- Runway Surface Type: Asphalt
- Airport Elevation: 1549 ft
- Runway Surface Condition: Dry
- Runway Used: 18
- IFR Approach: None
- Runway Length/Width: 3500 ft / 50 ft
- VFR Approach/Landing: Forced Landing

### Wreckage and Impact Information

- Crew Injuries: 1 Serious
- Aircraft Damage: Destroyed
- Passenger Injuries: 2 Fatal, 2 Serious
- Aircraft Fire: None
- Ground Injuries: N/A
- Aircraft Explosion: None
- Total Injuries: 2 Fatal, 3 Serious
- Latitude, Longitude:

### Administrative Information

- Investigator In Charge (IIC): Richard V Childress
- Adopted Date: 01/11/1994
- Additional Participating Persons: RALPH PERRY; LAS VEGAS, NV
- JERRY SHOEMAKER; WICHITA, KS
- MICHAEL J GRIMES; MOBILE, AL
- STEVE MACON; PHOENIX, AZ
- Publish Date:

- Investigation Docket: NTSB accident and incident docket 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 pubing@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at http://dms.ntsb.gov/pubdms/.
The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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