National Transportation Safety Board  
Aviation Accident Data Summary  

Location: Laughlin, NV  
Accident Number: WPR15FA163  
Date & Time: 05/17/2015, 1800 PDT  
Registration: N4775W  
Aircraft: ROCKWELL COMMANDER 114  
Injuries: 3 Fatal, 1 Serious  
Flight Conducted Under: Part 91: General Aviation - Personal  

Analysis

The private pilot/owner reported that, during the climb to between about 300 and 400 ft above the ground, the engine started running roughly, and the airplane was not accelerating or climbing. The terrain ahead was rising, so the pilot turned right. Due to the low altitude and reduced engine power, the pilot chose to conduct an off-airport landing, during which he attempted to troubleshoot the engine issue without success. As the airplane continued to descend, the pilot saw houses and bushes ahead; he aimed the airplane away from the houses, and the airplane eventually hit trees and terrain about 4.6 nautical miles from the airport. A postimpact engine fire ensued.

Postaccident examination of the engine revealed that the turbocharger was seized and that the exhaust side of the turbowheel was severely eroded, which led to the engine running rough. A review of the airplane’s maintenance records revealed that a turbocharger normalization system had been installed on the airplane under a supplemental type certificate (STC) 13 years before the accident. The STC’s instructions for continued airworthiness required that the turbocharger normalization system be inspected every 100 hours. However, a review of the airplane’s maintenance records revealed that the system had only been inspected once since its installation and that the inspection was completed 6 years before the accident. No other abnormalities were noted with the airframe or engine that would have precluded normal operation. It is likely that the eroded turbowheel would have been detected if the turbocharger normalization system had been inspected as required.

Flight Events

Initial climb - Loss of engine power (partial)  
Emergency descent - Collision with terr/obj (non-CFIT)

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

A partial loss of engine power due to the turbocharger's seizure as a result of a severely worn turbowheel. Contributing to the accident was the failure of the pilot/owner to have the turbo normalization system inspected every 100 hours as required, which allowed erosion on the exhaust side of the turbowheel to go undetected.
Findings

Aircraft-Aircraft power plant-Turbocharging (recip only)-Turbocharger-Fatigue/wear/corrosion - C  
Personnel issues-Task performance-Inspection-Scheduled/routine inspection-Maintenance personnel - F  
Environmental issues-Physical environment-Terrain-Rough terrain-Contributed to outcome

Pilot Information

<table>
<thead>
<tr>
<th>Certificate:</th>
<th>Private</th>
<th>Age:</th>
<th>59</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airplane Rating(s):</td>
<td>Single-engine Land</td>
<td>Instrument Rating(s):</td>
<td>None</td>
</tr>
<tr>
<td>Other Aircraft Rating(s):</td>
<td>None</td>
<td>Instructor Rating(s):</td>
<td>None</td>
</tr>
<tr>
<td>Flight Time:</td>
<td>2069 hours (Total, all aircraft), 1920.1 hours (Pilot In Command, all aircraft), 9 hours (Last 90 days, all aircraft), 2.2 hours (Last 30 days, all aircraft)</td>
<td></td>
<td></td>
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</tbody>
</table>

Aircraft and Owner/Operator Information

<table>
<thead>
<tr>
<th>Aircraft Make:</th>
<th>ROCKWELL COMMANDER</th>
<th>Registration:</th>
<th>N4775W</th>
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<tbody>
<tr>
<td>Model/Series:</td>
<td>114 B</td>
<td>Engines:</td>
<td>1 Reciprocating</td>
</tr>
<tr>
<td>Operator:</td>
<td>On file</td>
<td>Engine Manufacturer:</td>
<td>Lycoming</td>
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<tr>
<td>Operating Certificate(s)</td>
<td>None</td>
<td>Engine Model/Series:</td>
<td>IO-540-T4A5D</td>
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<tr>
<td>Held:</td>
<td></td>
<td>Flight Conducted Under:</td>
<td>Part 91: General Aviation - Personal</td>
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</table>

Meteorological Information and Flight Plan

<table>
<thead>
<tr>
<th>Conditions at Accident Site:</th>
<th>Visual Conditions</th>
<th>Condition of Light:</th>
<th>Day</th>
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</thead>
<tbody>
<tr>
<td>Observation Facility, Elevation:</td>
<td>KIFP, 695 ft msl</td>
<td>Weather Information Source:</td>
<td>Weather Observation Facility</td>
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<tr>
<td>Lowest Ceiling:</td>
<td>None</td>
<td>Wind Speed/Gusts, Direction:</td>
<td>13 knots / 21 knots, 170°</td>
</tr>
<tr>
<td>Temperature:</td>
<td>29°C</td>
<td>Visibility</td>
<td>10 Miles</td>
</tr>
<tr>
<td>Precipitation and Obscuration:</td>
<td>No Obscuration; No Precipitation</td>
<td>Departure Point:</td>
<td>BULLHEAD CITY, AZ (IFP)</td>
</tr>
<tr>
<td>Destination:</td>
<td>GOODYEAR, AZ (GYR)</td>
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</tbody>
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Airport Information

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<thead>
<tr>
<th>Airport:</th>
<th>LAUGHLIN/BULLHEAD INTL (IFP)</th>
<th>Runway Surface Type:</th>
<th>N/A</th>
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<tbody>
<tr>
<td>Runway Used:</td>
<td>N/A</td>
<td>Runway Surface Condition:</td>
<td>Vegetation</td>
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<tr>
<td>Runway Length/Width:</td>
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## Wreckage and Impact Information

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crew Injuries:</td>
<td>1 Serious</td>
</tr>
<tr>
<td>Aircraft Damage:</td>
<td>Destroyed</td>
</tr>
<tr>
<td>Passenger Injuries:</td>
<td>3 Fatal</td>
</tr>
<tr>
<td>Aircraft Fire:</td>
<td>On-Ground</td>
</tr>
<tr>
<td>Ground Injuries:</td>
<td>N/A</td>
</tr>
<tr>
<td>Aircraft Explosion:</td>
<td>On-Ground</td>
</tr>
<tr>
<td>Latitude, Longitude:</td>
<td>35.116667, -114.639167</td>
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## Administrative Information

<table>
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<tr>
<th>Category</th>
<th>Details</th>
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<tbody>
<tr>
<td>Investigator In Charge (IIC):</td>
<td>Patrick H Jones</td>
</tr>
<tr>
<td>Adopted Date:</td>
<td>06/07/2017</td>
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<td>Note:</td>
<td>The NTSB traveled to the scene of this accident.</td>
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<td>Investigation Docket:</td>
<td><a href="http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=91181">http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=91181</a></td>
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