Analysis

AT ABOUT 0933 MST, DEHAVILLAND DHC-6, N76GC, (OWNED & OPERATED BY CANYON AIRLINES) & BELL 206B, N6TC, (OPERATED BYHELITECK) COLLIDED WHILE ON SIGHTSEEING FLTS OVER THE GRAND CANYON NATIONAL PARK. AFTER COLLIDING IN FLT, BOTH ACFT CRASHED & BURNED IN THE TONTO PLATEAU/CRYSTAL RAPIDS AREA. DRG THE INV, NO REASON WAS FND TO EXPLAIN WHY NEITHER FLT CREW WAS ABLE TO SEE & AVOID THE OTHER ACFT. THE ACDNT OCCURRED IN AN AREA WHERE THE DHC-6 MAY HAVE BEEN IN A TURN. THE BELL 206B WAS NOT EQUIPPED WITH AN INTERCOM OR PUBLIC ADDRESS SYS TO COMMUNICATE WITH PASSENGERS; THUS, THE PLT MAY HAVE PERIODICALLY TURNED HIS HEAD DRG FLT TO NARRATE THE TOUR. THERE WAS EVIDENCE THE FAA FAILED TO EXERCISE ITS OVERSIGHT RESPONSIBILITY OVR FLT OPNS IN THE GRAND CANYON AIRSPACE & THAT THE NATIONAL PARK SVC INFLUENCED THE SELECTION OF ROUTES BY THE SCENIC OPERATORS. SUBSEQUENTLY, THE MODIFICATION & CONFIGURATION OF THE ROTARY-WING ROUTES RESULTED IN THEIR INTERSECTING WITH THE ROUTES OF GRAND CANYON AIRLINES NEAR CRYSTAL RAPIDS.

Probable Cause and Findings

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

Occurrence #1: MIDAIR COLLISION
Phase of Operation: MANEUVERING

Findings
1. (F) PROCEDURES/DIRECTIVES - INADEQUATE
2. (F) PRESSURE INDUCED BY OTHERS - OTHER GOVERNMENT PERSONNEL
3. (F) INADEQUATE SURVEILLANCE, INADEQUATE PROCEDURE - FAA(ORGANIZATION)
4. (C) VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND
5. (C) VISUAL LOOKOUT - INADEQUATE - PILOT OF OTHER AIRCRAFT

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED
## Factual Information

### Pilot Information

<table>
<thead>
<tr>
<th>Certificate:</th>
<th>Airline Transport; Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airplane Rating(s):</td>
<td>Multi-engine Land; Single-engine Land</td>
</tr>
<tr>
<td>Age:</td>
<td>27, Male</td>
</tr>
<tr>
<td>Seat Occupied:</td>
<td>Left</td>
</tr>
<tr>
<td>Other Aircraft Rating(s):</td>
<td></td>
</tr>
<tr>
<td>Restraint Used:</td>
<td>Seatbelt, Shoulder harness</td>
</tr>
<tr>
<td>Instrument Rating(s):</td>
<td>Airplane</td>
</tr>
<tr>
<td>Second Pilot Present:</td>
<td>Yes</td>
</tr>
<tr>
<td>Instructor Rating(s):</td>
<td></td>
</tr>
<tr>
<td>Toxicology Performed:</td>
<td>Yes</td>
</tr>
<tr>
<td>Medical Certification:</td>
<td>Class 1 Valid Medical--w/ waivers/lim.</td>
</tr>
<tr>
<td>Last FAA Medical Exam:</td>
<td>01/29/1986</td>
</tr>
<tr>
<td>Occupational Pilot:</td>
<td></td>
</tr>
<tr>
<td>Flight Time:</td>
<td>5970 hours (Total, all aircraft), 1556 hours (Total, this make and model), 5000 hours (Pilot In Command, all aircraft), 290 hours (Last 90 days, all aircraft), 111 hours (Last 30 days, all aircraft), 9 hours (Last 24 hours, all aircraft)</td>
</tr>
</tbody>
</table>

### Aircraft and Owner/Operator Information

<table>
<thead>
<tr>
<th>Aircraft Manufacturer:</th>
<th>de Havilland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model/Series:</td>
<td>DHC-6-300 DHC-6-300</td>
</tr>
<tr>
<td>Aircraft Category:</td>
<td>Airplane</td>
</tr>
<tr>
<td>Year of Manufacture:</td>
<td>Amateur Built: No</td>
</tr>
<tr>
<td>Airworthiness Certificate:</td>
<td>Normal; Transport</td>
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<tr>
<td>Aircraft Category:</td>
<td>Airplane</td>
</tr>
<tr>
<td>Serial Number:</td>
<td>248</td>
</tr>
<tr>
<td>Landing Gear Type:</td>
<td>Tricycle</td>
</tr>
<tr>
<td>Seats:</td>
<td>21</td>
</tr>
<tr>
<td>Date/Type of Last Inspection:</td>
<td>Unknown</td>
</tr>
<tr>
<td>Certified Max Gross Wt.:</td>
<td>12500 lbs</td>
</tr>
<tr>
<td>Time Since Last Inspection:</td>
<td>Engines: 2 Turbo Prop</td>
</tr>
<tr>
<td>Airframe Total Time:</td>
<td>30569 Hours</td>
</tr>
<tr>
<td>Engine Manufacturer:</td>
<td>P&amp;W</td>
</tr>
<tr>
<td>ELT:</td>
<td>Installed, activated, did not aid in locating accident</td>
</tr>
<tr>
<td>Engine Model/Series:</td>
<td>PT6A-27</td>
</tr>
<tr>
<td>Registered Owner:</td>
<td>GRAND CANYON AIRLINES</td>
</tr>
<tr>
<td>Rated Power:</td>
<td>715 hp</td>
</tr>
<tr>
<td>Operator:</td>
<td>GRAND CANYON HELICOPTER</td>
</tr>
<tr>
<td>Operating Certificate(s) Held:</td>
<td>Commuter Air Carrier (135); On-demand Air Taxi (135)</td>
</tr>
</tbody>
</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>
</tr>
</thead>
<tbody>
<tr>
<td>Observation Facility, Elevation:</td>
<td>GCN, 6000 ft msl</td>
<td>Observation Time:</td>
<td>0958 MST</td>
</tr>
<tr>
<td>Distance from Accident Site:</td>
<td>10 Nautical Miles</td>
<td>Direction from Accident Site:</td>
<td>90°</td>
</tr>
<tr>
<td>Lowest Cloud Condition:</td>
<td>Clear / 0 ft agl</td>
<td>Temperature/Dew Point:</td>
<td>25°C / 2°C</td>
</tr>
<tr>
<td>Lowest Ceiling:</td>
<td>None / 0 ft agl</td>
<td>Visibility</td>
<td>50 Miles</td>
</tr>
<tr>
<td>Wind Speed/Gusts, Direction:</td>
<td>8 knots, 200°</td>
<td>Visibility (RVR):</td>
<td>0 ft</td>
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<tr>
<td>Altimeter Setting:</td>
<td>Visibility (RVV):</td>
<td>0 Miles</td>
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</tbody>
</table>

### Wreckage and Impact Information

<table>
<thead>
<tr>
<th>Crew Injuries:</th>
<th>2 Fatal</th>
<th>Aircraft Damage:</th>
<th>Destroyed</th>
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</thead>
<tbody>
<tr>
<td>Passenger Injuries:</td>
<td>18 Fatal</td>
<td>Aircraft Fire:</td>
<td>On-Ground</td>
</tr>
<tr>
<td>Ground Injuries:</td>
<td>N/A</td>
<td>Aircraft Explosion:</td>
<td>None</td>
</tr>
<tr>
<td>Total Injuries:</td>
<td>20 Fatal</td>
<td>Latitude, Longitude:</td>
<td></td>
</tr>
</tbody>
</table>

### Administrative Information

<table>
<thead>
<tr>
<th>Investigator In Charge (IIC):</th>
<th>B. STRAUCH</th>
<th>Adopted Date:</th>
<th>03/07/1988</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional Participating Persons:</td>
<td>H &amp; J DONNER &amp; YOUNG; WASHINGTON, DC</td>
<td>B &amp; J RICHARDSON &amp; RYAN; WASHINGTON, DC</td>
<td>E &amp; R MUDROWSKY &amp; RODRIGUBZ; WASHINGTON, DC</td>
</tr>
</tbody>
</table>

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