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|---|-------------|---------------------------------|----------------------------------|--------------------------------------|--------|
|  | | NTSB ID: DEN00LA124 | | Aircraft Registration Number: N38903 | |
| | | Occurrence Date: 07/07/2000 | | Most Critical Injury: None | |
| | | Occurrence Type: Accident | | Investigated By: NTSB | |
| Location/Time | | | | | |
| Nearest City/Place LOGAN | State UT | Zip Code 84321 | Local Time 1500 | Time Zone MDT | |
| Airport Proximity: Off Airport/Airstrip | | Distance From Landing Facility: | | | |
| Aircraft Information Summary | | | | | |
| Aircraft Manufacturer Bell | | Model/Series 206L-3 /206L-3 | | Type of Aircraft Helicopter | |
| Revenue Sightseeing Flight: No | | | Air Medical Transport Flight: No | | |
| Narrative | | | | | |
| <p>Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:</p> <p>On July 7, 2000, at 1500 mountain daylight time, a Bell 206L-3, N38903, operated by Papillion Airways, Inc., sustained substantial damage during a forced landing approximately 6 miles west of Logan, Utah. The commercial pilot and his passenger were not injured. The flight was a local area maintenance test flight operating under Title 14 CFR Part 91 and no flight plan was filed. Visual meteorological conditions were present.</p> <p>A torque gauge had been changed and the pilot was conducting a test flight. Shortly after takeoff, persons on the ground noticed the left passenger door appeared to be open. The pilot was informed and was making a precautionary approach to landing to close the door when he heard and felt a bang followed by a slight vibration and rattling which subsided. When the nose of the helicopter started to drift right, the pilot said he attempted to correct it with pedal and found the pedals unresponsive and loose. He performed an autorotation with the engine power set at idle. During the flare for landing, the helicopter turned rapidly to the right and upon touchdown rolled on its left side. The pilot secured the engine and he and the passenger exited the helicopter.</p> <p>During the impact sequence, the helicopter shed the main rotor head and blades, which were both damaged by impact, and the tail boom was partially separated by main rotor impact about 3 feet aft of the horizontal stabilizer. The tail rotor drive shaft was intact through the boom separation area but the number 4 section was fractured and the number 5 section bent. They remained attached.</p> <p>When the flight originated, there were several items lying on the passenger seats. One of the items was a jacket with some red and black lettering stenciled on the back. This item was not found following the accident.</p> <p>Examination of the tail rotor drive shaft sections revealed a torsional fracture of the number 4 drive shaft 11.2 inches from the engine end as mounted on the aircraft. Wall thickness of the 1.26-inch diameter drive shafts was 0.0498-inch, which was within the range spelled out in the American National Standard Dimensional Tolerance for Aluminum Mill Products. Hardness of the 2024-T3 aluminum drive shaft tubes was 98 HRB, which met the 66 HRB minimums per BPS 4467 for typical 2024-T3 aluminum. Spectrographic analysis of the drive shaft tubes showed conformation to WWW-T-700/3 per the engineering drawing (reference SJL00-0361).</p> <p>Examination of tail rotor blade S/N CS 6266 revealed a red paint spot on the blade tip inboard side. The painted section of the blade was removed and sent to the Bell chemical laboratory for analysis. Paint transfer on the blade was analyzed and compared to the paint on a jacket like the one missing from the passenger seat. The analysis revealed that the paints were not chemically similar.</p> <p>Examination of tail rotor blade S/N CS 5999 revealed red paint transfer on the inboard and outboard sides of the blade's leading edge 5 inches from the blade tip. Analysis provided evidence that the</p> | | | | | |
| FACTUAL REPORT - AVIATION | | | | | |
| | | | | | Page 1 |

National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: DEN00LA124

Occurrence Date: 07/07/2000


Occurrence Type: Accident


Narrative (Continued)

paint was not chemically similar to that on the jacket. This blade also exhibited a dent on the outboard side of the blade 4.8 inches from the blade tip. In addition, this blade was bent 8.5 inches from the blade butt.

Neither tail rotor blade exhibited damage consistent with rotation at impact.

The helicopter color was white, yellow, red, maroon, and blue. The tail boom exhibited both main and tail rotor slap marks on the red painted portion of the boom. Paint transfer from the blades was present on the boom.

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|  National Transportation Safety Board FACTUAL REPORT AVIATION | | NTSB ID: DEN00LA124 | | | |
| | | Occurrence Date: 07/07/2000 | | | |
| | | Occurrence Type: Accident | | | |
| Landing Facility/Approach Information | | | | | |
| Airport Name | Airport ID: | Airport Elevation Ft. MSL | Runway Used 0 | Runway Length | Runway Width |
| Runway Surface Type: | | | | | |
| Runway Surface Condition: | | | | | |
| Approach/Arrival Flown: NONE | | | | | |
| VFR Approach/Landing: Forced Landing; Precautionary Landing | | | | | |
| Aircraft Information | | | | | |
| Aircraft Manufacturer Bell | | Model/Series 206L-3 /206L-3 | | Serial Number 51017 | |
| Airworthiness Certificate(s): Normal | | | | | |
| Landing Gear Type: High Skid | | | | | |
| Amateur Built Acft? No | Number of Seats: 7 | Certified Max Gross Wt. 4150 LBS | | Number of Engines: 1 | |
| Engine Type: Turbo Shaft | | Engine Manufacturer: Allison | | Model/Series: 250 C30P | |
| | | | | Rated Power: 650 HP | |
| - Aircraft Inspection Information | | | | | |
| Type of Last Inspection 100 Hour | | Date of Last Inspection 05/2000 | Time Since Last Inspection 72 Hours | | Airframe Total Time 10509 Hours |
| - Emergency Locator Transmitter (ELT) Information | | | | | |
| ELT Installed?/Type Yes / | | ELT Operated? Yes | | ELT Aided in Locating Accident Site? No | |
| Owner/Operator Information | | | | | |
| Registered Aircraft Owner PAPILLON AIRWAYS, INC. | | Street Address 12515 WILLOWS RD NE STE 200 | | | |
| | | City KIRKLAND | | State WA | Zip Code 98034 |
| Operator of Aircraft PAPILLON AIRWAYS, INC. | | Street Address 12515 WILLOWS RD NE STE 200 | | | |
| | | City KIRKLAND | | State WA | Zip Code 98034 |
| Operator Does Business As: PAPILLON GRAND CANYON HELOS | | | Operator Designator Code: GCHA | | |
| - Type of U.S. Certificate(s) Held: | | | | | |
| Air Carrier Operating Certificate(s): On-demand Air Taxi | | | | | |
| Operating Certificate: | | | Operator Certificate: Aircraft External Load | | |
| Regulation Flight Conducted Under: Part 91: General Aviation | | | | | |
| Type of Flight Operation Conducted: Unknown | | | | | |

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|  <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p> | NTSB ID: DEN00LA124 |
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First Pilot Information

| | | | | |
|-----------------|-----------------|------------------|---------------|-----------|
| Name On File | City On File | State On File | Date of Birth | Age 41 |
|-----------------|-----------------|------------------|---------------|-----------|

| | | | |
|--------|----------------------|--|---------------------|
| Sex: M | Seat Occupied: Right | Occupational Pilot? <input type="checkbox"/> Civilian Pilot <input type="checkbox"/> | Certificate Number: |
|--------|----------------------|--|---------------------|

Certificate(s): Commercial; Private

Airplane Rating(s): Single-engine Land

Rotorcraft/Glider/LTA: Helicopter

Instrument Rating(s): Helicopter

Instructor Rating(s): None

Current Biennial Flight Review?

| | | |
|------------------------|--|------------------------------------|
| Medical Cert.: Class 2 | Medical Cert. Status: Valid Medical--no waivers/lim. | Date of Last Medical Exam: 04/2000 |
|------------------------|--|------------------------------------|

| - Flight Time Matrix | All A/C | This Make and Model | Airplane Single Engine | Airplane Multi-Engine | Night | Instrument | | Rotorcraft | Glider | Lighter Than Air |
|-----------------------|---------|---------------------|------------------------|-----------------------|-------|------------|-----------|------------|--------|------------------|
| | | | | | | Actual | Simulated | | | |
| Total Time | 8300 | 6000 | 400 | | 800 | 50 | 400 | 8000 | | |
| Pilot In Command(PIC) | 7500 | 6000 | 25 | | 700 | 50 | 400 | 7500 | | |
| Instructor | | | | | | | | | | |
| Instruction Received | | | | | | | | | | |
| Last 90 Days | 150 | 150 | | | | | | 150 | | |
| Last 30 Days | 50 | 50 | | | | | | 50 | | |
| Last 24 Hours | 8 | 8 | | | | | | 8 | | |

| | | | |
|---|---|---|---|
| Seatbelt Used? <input type="checkbox"/> Yes | Shoulder Harness Used? <input type="checkbox"/> Yes | Toxicology Performed? <input type="checkbox"/> No | Second Pilot? <input type="checkbox"/> No |
|---|---|---|---|

Flight Plan/Itinerary

Type of Flight Plan Filed: None

| | | | | |
|---|-------|---------------------------|------------------------|------------------|
| Departure Point Same as Accident/Incident Location | State | Airport Identifier LGU | Departure Time 1440 | Time Zone MDT |
|---|-------|---------------------------|------------------------|------------------|

| | | | |
|-----------------------------|-------|--------------------|--|
| Destination Local Flight | State | Airport Identifier | |
|-----------------------------|-------|--------------------|--|


Type of Clearance: None

Type of Airspace: Class G

Weather Information

Source of Wx Information:

No record of briefing

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|-----------------------------------|-----------------------|--|-------------------|---------------------------------|------------------------------|
| Weather Information | | | | | |
| WOF ID | Observation Time | Time Zone | WOF Elevation | WOF Distance From Accident Site | Direction From Accident Site |
| LGU | 1453 | MDT | 4485 Ft. MSL | 6 NM | 90 Deg. Mag. |
| Sky/Lowest Cloud Condition: Clear | | | 0 Ft. AGL | Condition of Light: Day | |
| Lowest Ceiling: None | | 0 Ft. AGL | Visibility: 10 SM | Altimeter: 29.00 "Hg | |
| Temperature: 31 °C | Dew Point: 3 °C | Weather Conditions at Accident Site: Visual Conditions | | | |
| Wind Direction: 220 | | Wind Speed: 9 | Wind Gusts: | | |
| Visibility (RVR): 0 Ft. | Visibility (RVV) 0 SM | | | | |
| Precip and/or Obscuration: | | | | | |

| | | |
|------------------------------|---------------------|--------------------------|
| Accident Information | | |
| Aircraft Damage: Substantial | Aircraft Fire: None | Aircraft Explosion: None |

| - Injury Summary Matrix | Fatal | Serious | Minor | None | TOTAL |
|-------------------------|-------|---------|-------|------|-------|
| First Pilot | | | | 1 | 1 |
| Second Pilot | | | | | |
| Student Pilot | | | | | |
| Flight Instructor | | | | | |
| Check Pilot | | | | | |
| Flight Engineer | | | | | |
| Cabin Attendants | | | | | |
| Other Crew | | | | | |
| Passengers | | | | 1 | 1 |
| - TOTAL ABOARD - | | | | 2 | 2 |
| Other Ground | 0 | 0 | 0 | | 0 |
| - GRAND TOTAL - | 0 | 0 | 0 | 2 | 2 |

National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: DEN00LA124

Occurrence Date: 07/07/2000

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

NORMAN F. WIEMEYER

Additional Persons Participating in This Accident/Incident Investigation:

RICHARD LUND
SALT LAKE CITY, UT