

ATTACHMENT 3

Final Report from Director of Safety



Final Report from the Director of Safety

Report prepared by: Michael C. Flaherty, Director of Safety

Date: 22 August,

Accident or incident: Separation of “chin bubble” from cabin, helicopter N350SH.

Attachments:

In accordance with Sundance Helicopters Safety Management System Policy, this report serves to document the Director of Safety’s investigation into the facts and circumstances surrounding the listed accident or incident.

This document contains a detailed list of the relevant facts known at the time of the report, and is intended to serve as an educational tool for the continuous improvement of our Risk Management Program.

Distribution: Lawrence Pietropaulo, CEO
Kurt Barton, Director of Operations
Kyle Reynolds, Director of Maintenance

General Data

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| Event Date & Time | 16 June 2011 08:30am |
| Event Type | Failure of non-structural airframe component (chin bubble & related seal) |
| Event Location | Ramp at Sundance Helicopters Base, McCarran international Airport, Las Vegas, NV |
| Type of Activity Process or procedure engaged in at time of event. | Departing helicopter tour flight of the Grand Canyon, operating under applicable FAR Part 135/136 |
| Personnel directly exposed to hazard | John Testa, Line Captain & 5 tourist passengers |
| Injuries | Flight Crew: None reported Ground Crew: None reported PAX: None reported |
| Emergency Services Provided Police, Fire, Ambulance/EMT | No emergency services requested or provided. |
| Equipment Involved | One Eurocopter model AS350 B2 helicopter. Registration # N350SH. |
| Property Damage | No significant property damage. No collateral damage. |
| Reported to local FSDO | No |
| Reported to NTSB | No |
| OSHA Reportable/Recordable | No/No |
| SafeCom Issued (OAS) | N/A |
| Hazard Potential | Mild Moderate Severe |
| Event Description | On the morning of 16 June Line Captain John Testa was hovering on the Sundance the intent to depart on a routine helicopter tour flight of the Grand Canyon. As he transitioned from hover to taxi, he noticed the left hand side (Pilot's side) chin bubble missing from the helicopter. The helicopter was immediately landed without further incident. Upon landing, the pilot made a discrepancy entry in the aircraft maintenance log in the separation of the L/H chin bubble. Maintenance personnel immediately responded to the chin bubble with a new one. Upon completion of repair and related documentation, the original Crew and passengers completed the tour without further incident. |
| Probable Cause | The night before the event, an AMT was responding to a discrepancy on N350SH. To troubleshoot the issue, the AMT had removed the L/H chin bubble in order to gain access to certain electrical components. After an interview with the AMT conducted by the Maintenance QA Manager and the Safety, the consensus was that the AMT failed to properly re-install the chin bubble upon completion of his diagnostic task the prior evening. At the request of the CEO, The Director of Safety & the Maintenance QA Manager conducted a formal Root Cause Analysis in an attempt to develop a deeper understanding of the causes and contributing factors that lead to this failure. Using a 5 step process, the analysis revealed the root cause of this event was the AMT's perception of the need to expedite the repair in order to avoid contributing to an unacceptable aircraft downtime rate. In his attempt to expedite the repair process, the AMT failed to reference the appropriate maintenance documents that detail the task of installing the chin bubble. Admittedly, the AMT attempted to rely on past experience and memory for completing the task. |
| Economic Impact (expenses directly related to this event) | \$350.00 Cost of replacement window, Part # 350A21-0200-26. |
| Corrective Action(s) | The Director of Maintenance has since provided all company AMTs specific training on the proper removal & installation of Eurocopter AS350 helicopter chin bubble (window). |
| Additional Recommendations | |

DCA12MA020 Human Performance Specialist's Factual Report

Flight Crew Data

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|---|---|
| Name of pilot in command | John Testa |
| Date of hire | 04 April 2011 |
| Total hours as PIC helicopters | 2013 Hours (approximately) |
| Total number of hours in type | 125 Hours (approximately) |
| Most recent checkride or flight eval. prior to event | Date: 14 April 2011 Type: Initial FAA Part 135.293/299 Airman Competency/Proficiency Results: Approved |
| Medical certificate data | Type: FAA 1 st Class Limitations: None Exam Date: 12/06/2010 |
| Pilot certificate data | Type: FAA Commercial Pilot Certificate with Rotorcraft Helicopter & Instrument Helicopter Limitations: "English Proficient" |
| Other pilot qualifications | Charter Qualified: No OAS Carded: No |

Aviation Maintenance Technician Data

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|---|---|
| Name of AMT | Gaylan Waterfallen |
| Date of hire | 22 November, 2010 |
| Position (at time of event) | Lead Aviation Maintenance Technician & Company Aircraft Maintenance Inspector |
| FAA Certification | FAA Certified Mechanic, Airframe & Powerplant |
| Training Has AMT received make/model specific training? When? | 1. Eurocopter AS350 Field Maintenance Course, completed 22 March, 2002. 2. Arriel Line Maintenance Familiarization Course, completed 09 July 2004. |
| Other specialized training Co. Inspector, Human Factors, etc. | Sundance Helicopters Aircraft Maintenance Inspector Course, completed 26 April, 2011 |
| Experience in field | 11 years as FAA Certified A&P |

Aircraft Data

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|---|---|-----------------|
| Aircraft Type | Eurocopter Model AS350 B2 Helicopter | |
| Registration | N350SH | |
| Serial No. | 2957 | |
| Aircraft Total Time | 19,605 Hours | |
| Engine Total Time | 4,133 Hours | |
| Identification of failed component | Left hand "chin bubble" (Plexiglas) Part #350A21-0200-26, and related seal. | |
| Life limited component? | No. Serviceability is determined upon inspection. | |
| Total number of hours on failed component | Unknown. | |
| Failed component maintenance and/or inspection history | Date of last inspection: N/A Inspection type: N/A Condition of component: N/A | Total time: N/A |

Environmental Data

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|-----------------------------------|--|--------------|-----|
| Source | KLAS METAR | | |
| General Weather Conditions | VFR | Marginal VFR | IFR |
| Time of Report | 16 June, Approximately 07:56 am (local time) | | |
| Wind | Calm | | |
| Temp °F | 84° F | | |
| Dew Point °F | 28° F | | |
| Visibility | 10 Miles | | |
| Ceiling | | | |
| Sky Condition | Clear | | |