

SUNDANCE
HELICOPTERS



Sundance Helicopters
—
Presentation to NTSB



Thank You NTSB

- Sundance Helicopters is appreciative of the thoroughness, professionalism, and transparency of the NTSB process.
- Sundance Helicopters will utilize results of the NTSB investigation to improve its operations.
- Many improvements have already been accomplished over the course of the unfolding investigation.



Changes Resulting From Investigation

- Sundance Helicopters has made a number of improvements to its maintenance and inspection processes to reduce the likelihood of this type of accident from happening in the future.
- Sundance now requires a more thorough post-flight inspection process following any maintenance operational check flight.
- Sundance now requires personnel to visually re-inspect all replaced components
- Sundance now requires documentation of these inspections.
- Sundance replaced the specific hardware involved in this accident throughout its entire fleet of 22 helicopters.
- Sundance now replaces these hardware components at 5,000 hours of flight time, even though there is no 'time in service' life limits assigned to them.



Post Accident FAA Audits

- As a direct result of the accident Sundance Helicopters has undergone 2 separate “Team Focused” FAA Inspections.
- One was at the FSDO level and a second at the Regional level.
- No significant violations or enforcement actions were noted.
- On both occasions, inspectors were orally complimentary of the operation.



Sundance Helicopters Corporate Resume

- In business 27+ years.
- Diverse scope of operations including tours, firefighting, utility, and DOD.
- Average Line Captain has experience of 5,000 PIC in helicopters.
- Over 30,000 flight hours annually.
- Over 200,000 passengers annually.



CEO Mr. Bob Engelbrecht

- Over 40+ years of helicopter industry experience.
- Former United States Air Force Pilot; Air Rescue Detachment Aircraft Commander.
- Temsco Helicopters – Vice President.
- Alaska Air Carrier Association – President.
- NorthStar Trekking – Founder President and Owner.
- Founding Member and former Chairman of TOPS.
- American Eurocopter – Regional Marketing Manager, Utility, and Tour Market Specialist.



Commitment To Safety & Continuous Improvement

- Recipient of the HAI “Platinum Program of Safety Award” every year since 2006.
- Active member of TOPS for 10+ years.
- Among the first in the industry to implement a formal SMS.
- Among the first in the industry to manage system safety at the Director level.
- Aggressively pursuing a new global industry standard with helicopter-specific IS-BAO Certification.
- Provide our FAA Certified Aviation Maintenance Technicians with make & model specific factory training.



Thank you for your time!

Sundance Helicopters - Commitment to Safety

Relatively early in the official NTSB investigation of the loss of N37SH, attention was drawn to the fact that a specific fastener assembly (bolt, locking nut & cotter pin) used to secure certain flight controls could not be located in the aircraft wreckage. Upon learning that this flight control hardware was suspect, Sundance Helicopters took the following precautionary measures:

- Sundance Helicopters FAA Certified Aviation Maintenance Technicians replaced that specific type of hardware on each of the three upper control arms throughout its entire fleet of 22 helicopters.
- Sundance Helicopters implemented an internal policy that limits the service life of this particular hardware to 5,000 hours. Regardless of condition, Sundance now replaces these fasteners with new components at 5,000 hours, even though these particular fasteners are not subject to specific “time in service” or life limits. While most operators permit these fasteners to remain in-service so long as they continue to pass periodic inspection, Sundance has adopted a more conservative approach of replacing these fasteners at a fixed level of usage.
- Sundance Helicopters has revised its Maintenance Operational Check Flight procedures. Revised procedures now require a more in-depth post-flight inspection, to include a visual inspection following the flight specific to any components or assemblies that have been serviced or replaced.
- Sundance Helicopters conducted an analysis of the helicopter tour routing in the vicinity of the accident site. Upon careful review, Sundance Helicopters determined that taking a more northerly course around the River Mountains would provide quicker access to flat terrain in the event of an unscheduled landing.
- While not related to the accident currently under investigation, Sundance has taken a number of other steps to improve the safety of its operations.
 - Dual VHF radio communication capabilities: Although many of Sundance's helicopters were already equipped with dual VHF radios, some were not. Sundance Helicopters is ensuring that all helicopters in its fleet are equipped with redundant VHF communication radios.
 - Factory Maintenance Training: Sundance Helicopters recently provided “Factory Maintenance Training” to 12 additional FAA Certified Aviation Maintenance Technicians. At this time, virtually all of Sundance Helicopters' FAA Certified Aviation Maintenance Technicians have successfully completed the Factory Maintenance Training program. This training exceeds FAA Part 135 requirements.
 - Formal Maintenance Quality Assurance Program: Sundance Helicopters continues to enhance and expand the role of our in-house Maintenance Quality Assurance Program. This department is fully staffed with trained personnel dedicated to ensuring every

critical aspect of aircraft maintenance is thoroughly inspected and properly documented. This program also exceeds FAA Part 135 requirements.

- Regular TOPS audits: Sundance Helicopters is a member of the Tour Operators Program of Safety (TOPS). TOPS is a voluntary industry organization whose goal is to ensure that the helicopter tour industry achieves a zero-accident rate. TOPS members are regularly audited to ensure that their flight and maintenance operations continuously adhere to rigorous standards that go well beyond FAA regulatory requirements.
- IS-BAO certification: In an effort to further raise the bar on safety within the company, Sundance Helicopters is aggressively pursuing the highly regarded IS-BAO Certification. An International Standard for Business Aircraft Operations has been developed by the business aviation and international helicopter communities for the purpose of promoting global standardization, with an emphasis on safety. Sundance believes it can enhance its operations by meeting and exceeding these standards.
- Sundance Helicopters has also received confirmation on a number of occasions about the state of its safety emphasis and safety programs.
 - In February 2012, as a direct result of the accident, Sundance Helicopters received two separate and thorough “Team Focused” FAA Inspections. These inspections specifically targeted Flight Operations, Maintenance Operations as well as Training and other operations. No violation or FAA enforcement action was identified. In fact, on more than one occasion FAA Inspectors were verbally complimentary of Sundance operations.
 - Sundance Helicopters is routinely audited by other U.S. Government Agencies such as; the Department of Defense (DOD), and the Office of Aviation Services (OAS). In each instance, Sundance Helicopters has demonstrated its ability to conduct safe and reliable operations as a prerequisite to doing business with these agencies.

Lastly, it is important to understand that the above listed changes are by no means exhaustive. Sundance Helicopters is, and always has been, committed to constant improvement and the highest levels of safety. As such, we will continue to evaluate policies, improve procedures, and innovate ways to ensure those objectives are consistently achieved.