
HELICOPTER FACTS

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4 Key Helicopter Technologies That Will Save Lives

After analyzing dozens of helicopter accidents that resulted in fatalities for pilots and passengers, the U.S. Helicopter Safety Team (www.USHST.org) has determined that the further development and wider usage of these four flight technologies will improve safety across the helicopter industry and save lives.

Develop Autopilot Equipment for Light Helicopters – Current light helicopters have flight characteristics that are challenging and demanding of pilot work load. The development and certification of a stability augmentation system (or autopilot device) for light helicopters will increase flight stability and mitigate loss of control issues. The USHST believes that current equipment used in the aviation industry can be adapted for light helicopters and be an effective safety tool during low visibility, low ceiling and unintended IMC conditions.

Develop Full Authority Idle Protection Devices – The use of full authority idle protection devices in helicopters would increase safety by reducing the risk of engine stoppage in a piston helicopter. The device would be capable of ensuring that the engine remains running at nominal RPM despite the pilot making a rapid throttle reduction. The USHST believes that current technologies can be adapted for the development of this device.

Install and Use Flight Data Monitoring Equipment – Helicopter flight data monitoring devices, including audio/video recording devices, offer the ability to collect data on normal and atypical operations. The majority of fatal accidents that occurred since 2009 had insufficient data surrounding the details of the helicopter's state when the event transpired. As a result of this deficiency, proactive interventions cannot be put in place before an event occurs. The USHST believes that with flight data monitoring information, hazardous behavior can be identified and there is an opportunity to break the accident chain before it results in fatalities.

Provide Enhanced Vision Technology Whenever Warranted – Enhanced vision systems such as night vision goggles, synthetic vision systems, and combined vision systems assist a pilot in recognizing and preventing unplanned flight into degraded visibility conditions due to weather. They can also increase safety during planned flying at night. The USHST believes that this technology provides pilots with better tools that can contribute to more informed and proactive decision making as related to visibility. The USHST also cautions that enhanced vision systems should not be used with the intent to equip pilots to fly in risky weather conditions.