

MOST WANTED

TRANSPORTATION SAFETY IMPROVEMENTS

ENHANCE PUBLIC HELICOPTER SAFETY

What is the issue?

The safety of public helicopter operations is often overlooked.

Every day, hundreds of federal, state, and local helicopter pilots fly emergency medical service, law enforcement support, and search and rescue missions, as well as a host of other public operations. The public trusts these operators and relies on them to conduct the mission safely; the public often needs this transportation to survive. And each of these helicopter operations requires planning, training, and support. Unfortunately, not all of the pilots complete their missions.

On September 27, 2008, a Maryland State Police (MSP) helicopter, Trooper 2, received a medevac flight request to pick up two patients involved in an automobile accident. Trooper 2 reached the accident site, loaded the patients, but never reached the hospital.

On June 9, 2009, a New Mexico State Police (NMSP) helicopter pilot received a request for an aerial search for a lost hiker. The NMSP pilot landed the helicopter, located the hiker, departed from the mountain, but did not make it back to base.

A very similar situation occurred on March 30, 2013. The Alaska Department of Public Safety (ADPS) helicopter pilot received a request to rescue a stranded snowmobiler. The pilot landed the helicopter, located the snowmobiler, departed from the frozen lake, but did not reach the designated landing zone.

Prior to accepting their missions, both the MSP and NMSP pilots expressed concern about weather conditions. Although the pilot of the ADPS helicopter did not discuss the weather with anyone, he should have been aware of the deteriorating conditions. However, all three pilots accepted and attempted to complete the missions even when faced with poor weather at night. And tragically, the helicopters crashed before reaching their destinations, killing a total of nine people.

Crashes involving public helicopters are not just limited to those used by law enforcement agencies. On January 5, 2010, a California Department of Fish and Game helicopter sustained substantial damage when it collided with power lines during a deer-surveying mission. The NTSB determined that the pilot's failure to maintain positive control of the helicopter caused the crash.

Since 2004, the NTSB has investigated more than 130 accidents involving federal, state, and local public helicopter operations, including the 4 mentioned above. Fifty people lost their lives and nearly 40 were seriously injured in these accidents. The lessons learned as a result of these investigations have the potential to make federal, state, and local public helicopter operations safer.



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What can be done?

Because public operator safety is not generally governed by Federal Aviation Administration regulations, a safety net does not necessarily exist; the safety decisions and programs are solely the responsibility of the public operators. Yet these operators often carry passengers, and they owe it to the public, who they serve, to operate in the safest manner possible. The NTSB is concerned that, absent a concerted effort to enhance helicopter safety in public operations, accidents involving public helicopters will continue. These could lead to more injuries and loss of life in search and rescue operations and emergency medical service flights, as well as other operations by federal, state, and local entities.

Based on our accident investigations, the NTSB has identified a number of actions that public operators can take to address operational, pilot, and helicopter factors.

Operational factors hold great promise because they impact the overall safety of the operation. Operational improvements include developing and implementing safety management systems that include sound risk management practices, particularly flight risk evaluation programs and formalized dispatch and flight-following procedures. Operators can also implement best practices for flight crews that include scenario-based training and fatigue management. In particular, given the heightened risk associated with flight in bad weather, helicopter operators should employ training scenarios that expose pilots to inadvertent flight into instrument meteorological conditions.

Helicopter technology also plays a significant role in mitigating risk to thousands of pilots and passengers each year. The NTSB has recommended that helicopter operators install radio altimeters, night vision imaging systems, and terrain awareness warning systems.

Finally, the NTSB advocates for crash-resistant flight recorder systems for all aircraft. These recorders can be used to enhance the safety culture within the public agency by allowing the operators to identify and address safety issues before a crash occurs. Further, if an accident does occur, crash-resistant flight recorder systems can assist investigators, regulatory agencies, and operators to quickly identify what went wrong and how to prevent it from happening again.



Critical changes
needed to reduce
transportation
accidents
and save lives



for more information visit: www.ntsb.gov/mostwanted



The NTSB's Most Wanted List highlights safety issues identified from the NTSB's accident investigations to increase awareness about the issues and recommended safety solutions.

The National Transportation Safety Board is an independent Federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation - railroad, highway, marine and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the Federal Government and other organizations to provide assistance to victims and their family members impacted by major transportation disasters.

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