



**United States Helicopter Safety Team**  
Our Vision: A Civil Helicopter Community with Zero Accidents



## ***HELICOPTER SAFETY NEWS***

Feb. 13, 2019

### **USHST Sees Safety Benefits of Integrating UAS and OPA Technology into Helicopter Operations**

WASHINGTON DC – As part of its commitment to drive down the civil helicopter fatal accident rate, the U.S. Helicopter Safety Team ([www.USHST.org](http://www.USHST.org)) has issued a report identifying how Unmanned Aircraft Systems (UAS) and Optionally Piloted Aircraft (OPA) technology can reduce fatalities in high-risk operations.

The study by the USHST is part of a larger effort to implement data-driven safety enhancements that will slash the number of fatal helicopter accidents involving low-altitude flying, unintended flight into IMC, and loss of control-inflight issues.

In 10 of 52 fatal accidents thoroughly analyzed by the USHST, the support of UAS or OPA technology could have mitigated the risks that emerged during the operation. Accordingly, the USHST recommended that industry and the FAA look toward opportunities to increase the use and integration of UAS and OPA to supplement and support manned operations in high-risk environments.

The full report on integrating UAS and OPA technologies, with all of the team's recommendations, can be found on the USHST web site (<http://www.ushst.org/Reports>). Listed below are three key recommendations focused on improving safety within high-risk helicopter operations.

- **Develop and use helicopters that incorporate or integrate UAS or OPA technology.** With helicopters that could be flown remotely or by a pilot, operators who take on low-altitude jobs could reduce pilot workload, increase the accuracy of specific tasks, and improve productivity. As part of its analysis, the USHST studied five fatal accidents involving cattle mustering, frost protection, cherry orchard drying, and low-altitude law enforcement search operations. These missions are often low-level, grimy and monotonous. Fatigue and boredom can become significant risk factors for the pilot with results that are fatal. Using helicopters with integrated UAS/OPA technology as a supplement to these operations would reduce the risks.
- **Integrate Sense-and-Avoid technology into helicopters.** As Sense-and-Avoid technology is perfected for UAS and OPA, it will also be the next logical safety step for existing helicopters and would have an immediate beneficial effect on reducing fatal

accidents in manned operations. This is especially true in the aerial application industry where low altitude flying and fatigue play a role in fatal crashes.

- **Introduce UAS and OPA in specific high-risk operations.** USHST analysis shows that UAS and OPA can save lives in operational areas that entail high-risk flights. In areas such as transmission line inspection, utility data collection, pipeline patrol and wind turbine inspections, UAS and OPA operations should be integrated with manned helicopter operations.

Additional recommendations such as STEM education programs, pilot skills assessments, ID tracking, unmanned traffic management, and issues involving state and local laws can be found in the full report.