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# IdentiFlight AI System Hugely Reduces Bird Fatalities At Wind Farms

By Zachary Shahan Published February 3, 2021

5-7 minutes



Bird fatalities associated with wind farms has long been a focus area of “concern trolls” who primarily don’t want to see the industry grow. That’s not to say it’s not an issue at all. Very early on in the wind industry, bird deaths were indeed a significant issue, but it didn’t take long for redesigned wind turbines to greatly reduce that problem. These days, many more bird deaths come from birds flying into windows or buildings and from house cats than from wind turbines. But, again, that doesn’t mean it’s not an issue at all, especially in areas with protected species like eagles. Luckily, innovation in the industry continues in order to try to improve on

the situation.

A new approach developed by [IdentiFlight](#), scientifically studied and written about in *Journal of Applied Ecology*, has resulted in an 82% reduction in bird (eagle) fatalities. And the approach has improved since that study was initiated. “A year later, system continues to learn and improve.”

The new independent study, “[Automated curtailment of wind turbines reduces eagle fatalities](#),” was conducted in Wyoming “by The Peregrine Fund, in cooperation with Western EcoSystems Technology, Inc. and the US Geological Survey.”

“Avian collisions with turbine blades have been a long-time concern in the wind industry. The IdentiFlight avian detection technology was developed to address this problem and promote the successful coexistence of avian wildlife and wind energy,” said Ben Quinn, Senior Vice President at IdentiFlight. “We now have conclusive evidence that IdentiFlight can be utilized as a mitigation and minimization solution for current and future wind projects.”



## How Does It Work?

I'll let the company explain its tech itself: “The IdentiFlight system

blends artificial intelligence with high-precision optical technology to detect eagles and other protected avian species. Proprietary software and neural network technologies process the images to determine 3D position, velocity, trajectory, and protected species of interest, all within seconds of detection. IdentiFlight towers operate as an autonomous system detecting, classifying, and curtailing specific turbines that could pose a risk to the bird. The system detects a bird as far as one kilometer away, classifying it as a protected species such as an eagle (or not) in real time. The IdentiFlight towers can be positioned to cover multiple turbines in a single wind farm. When installed as a network with overlapping aerial coverage, the systems work together to provide the most protection possible for avian activity in the area.” You can watch it in action here:

The IdentiFlight system, which is in commercial use across the world, has reportedly “actively tracked and documented over 2.2 million eagle tracks.” In total, 47 million images of protected species have been gathered by the system. Furthermore, an additional 10 million images are added each year.

Carlos Jorquera, Chief Technology Officer for IdentiFlight, stated, “One of the advantages of the IdentiFlight system is its ability to learn from the massive amounts of data that it collects daily from eagles and other protected bird species around the world. By leveraging artificial intelligence technologies, such as machine-learning and convolutional neural networks, the system continuously improves as the data set grows.”

Quinn added, “In fact, IdentiFlight has achieved dramatic improvements in the time since this study was completed with expanded capabilities and new avian species added to better

serve global needs, including Red and Black Kites, Golden Eagles, Bald Eagles, Wedge-tailed Eagles, White-tailed Eagles, Lesser Spotted Eagles and Condors. We are excited about the future of IdentiFlight and look forward to continuing to demonstrate that wildlife and wind generation can coexist.”

*Image courtesy [IdentiFlight](#)*

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## [wind turbines birds](#)



Zach is tryin' to help society help itself one word at a time. He spends most of his time here on *CleanTechnica* as its director, chief editor, and CEO. Zach is recognized globally as an electric vehicle, solar energy, and energy storage expert. He has presented about cleantech at conferences in India, the UAE, Ukraine, Poland, Germany, the Netherlands, the USA, Canada, and Curaçao. Zach has long-term investments in Tesla [TSLA], NIO [NIO], Xpeng [XPEV], Ford [F], ChargePoint [CHPT], Amazon [AMZN], Piedmont Lithium [PLL], Lithium Americas [LAC], Albemarle Corporation [ALB], Nouveau Monde Graphite [NMGRF], Talon Metals [TLOFF], Arclight Clean Transition Corp [ACTC], and Starbucks [SBUX]. But he does not offer (explicitly or implicitly) investment advice of any sort.

