

Diane Damos, PhD — Aviation Psychologist

UP IN THE AIR

When a Germanwings pilot diagnosed with depression purposely crashed a jet into the French Alps in 2015, killing all 150 people on board, the media wanted to know how and why this could happen. The expert many turned to was psychologist Diane Damos, PhD. Damos is one of the few psychologists in the United States who specializes in civilian pilot selection, having for more than 30 years advised U.S. and international private airlines as well as the Navy and Air Force. Because of that experience, she knew that Lufthansa, Germanwings's parent company, had a stringent pilot screening program. "It's days and days of standardized testing, assessing all sorts of cognitive abilities, interviews with clinical psychologists—it is extensive," she told one reporter.

So why didn't this screening catch this pilot's mental illness beforehand? "Any test that you give has what we call false negatives and false positives," Damos told Slate.com. With psychometric screening, a false negative could mean missing someone who has suicidal tendencies, and a false positive could mean saying someone has suicidal tendencies when they really don't. "If you were to put one of these in place, you could screen out a lot of people as suicidal who really aren't, and that could ruin a lot of people's careers and cause a lot of collateral damage," she said.

HOW SHE GOT HER WINGS

Damos discovered psychology as a junior at the University of Illinois. She had been majoring in physics in the late 1960s, but realized it would be difficult to find a job due to a glut of engineers and physicists at the time. During one of Damos's courses, a classmate mentioned that he was working at the university's aviation research lab. He offered to take her to the lab for a tour.

"The lab was way ahead of its time because it was interdisciplinary, with a team of engineers and psychologists who were working together," she said. "They were researching displays for aircraft, new methods for training pilots and pilot selection."

She switched her major to experimental psychology and accepted a job as a researcher at the Aviation Research Laboratory, where she studied pilot selection methods. When she finished her undergraduate training, she transitioned to a graduate program in aviation psychology at the University of Illinois. As part of her training, she learned the cognitive science of human abilities, skills and training processes – and how to fly.

FINDING A NICHE

Damos's career in pilot selection started with a faculty position at the State University of New York at Buffalo, where she taught courses in human factors, organizational management and aviation psychology. Later, she moved on to Arizona State University and taught similar courses. She then joined the Institute of Safety and Systems Management at the University of Southern California, where she taught courses and conducted research related to time sharing. When the university closed the institute in 1995, she decided to start a business focused on pilot selection.

The demand for pilot selection tests has declined in the United States because fewer people are interested in becoming pilots. Being a pilot "has lost its glamour," she said. "It is very expensive to learn how to fly." So, Damos now develops and teaches courses in pilot interviewing and selection for airline personnel and continues to work with foreign aviation training schools. She also works as an expert witness for both plaintiffs and defense attorneys on litigation related to issues such as commercial pilot lifetime earnings, hiring and performance.



"Working at NASA, I have a chance to see how psychological concepts are applied in real world settings in ways that have measurable, positive impacts."

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