Software could help reduce leading cause of air fatalities

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Nicholas Kasdaglis

Nicholas Kasdaglis, a Ph.D. student and research assistant in the Human-Centered Design Institute at Florida Institute of Technology, has been awarded use of cutting-edge design software that may allow him to better understand and eventually help minimize the leading cause of commercial aviation fatalities.

Kasdaglis, who has his master's degree in human factors from the Florida Tech College of Aeronautics, will use software from the

Montreal, Canada-based company Presagis as part of his Ph.D. dissertation focusing on the advancement of cockpit design to support pilots in avoiding, recognizing, and recovering from loss of control in-flight (LOCI).

Kasdaglis is focusing on this particular problem because LOCI accounts for the largest number of fatalities in commercial aviation.

"This really is a wonderful opportunity that will help in the development of future life-saving tools," Kasdaglis said.

Presagis is providing its VAPS XT software for Kasdaglis to use. The company specializes in applications for a wide variety of commercial and military markets including glass cockpits, aircraft simulation, UAS/UAV navigation, sensor and mission training, as well as ground and naval vehicle simulators. The software allows for rapid prototyping of cockpit displays, which means researchers can more quickly get feedback from pilots and validate various instruments configurations in their quest to minimize loss of control issues.

"Our usual VAPS XT users build actual aircraft cockpit displays so we're very excited to have Mr. Kasdaglis using our tools to test and develop new glass cockpit concepts," said Stéphane Blondin, head of product management and marketing at Presagis.

Using the Presagis software, Kasdaglis will be able to quickly prototype and test various display configurations, allowing him to better adapt the displays to take full advantage of the human strengths and weaknesses, an idea that is central to human-centered design.

Provided by Florida Institute of Technology