

# Do video game players make the best unmanned pilots?

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New research from the University of Liverpool highlights the usefulness of Video Game Players (VGPs) as unmanned aircraft operators.

The move to significant automation has been a feature of aviation over the last 40 years. Unmanned Aerial Systems (UAS) operations, commonly known as a aircraft which are unmanned, have outpaced current training regimes resulting in a shortage of qualified UAS pilots.

In an effort to address this problem researchers from the University's Institute of Psychology, Health and Society, led by Dr Jacqueline Wheatcroft, and the Department of Mechanical, Materials and Aerospace Engineering (Dr Mike Jump), explored the suitability of three potential UAS groups; VGPs, private pilots and professional pilots.

The participants, 60 in total, all took part in a simulated civilian cargo flight to enable the researchers to assess their levels of accuracy, confidence and confidence-accuracy judgements (W-S C-A).

The participants made 21 decision tasks, which varied across three levels of danger/ risk.

As danger increased levels of confidence, accuracy and the relationship between how accurate the decision was and the level of confidence applied to those decisions decreased.

The dangerousness of the decision also affected how confident

participants were when choosing to intervene or rely on the automation; confidence was lower when the operator chose to intervene.

Professional pilots and VGPs exhibited the highest level of decision confidence, with VGPs maintaining a constant and positive W-S C-A relationship across decision danger/risk.

All groups showed higher levels of decision confidence in decisions controlled by the UAS in comparison to decisions where the operator manually intervened.

Dr Jacqueline Wheatcroft, said: "Understanding which potential supervisory group has the best skills to make the best decisions can help to improve UAS supervision. Overall, video game players were less overconfident in their decision judgements.

"The outcome supports the idea that this group could be a useful resource in UAS operation."

**More information:** Jacqueline M. Wheatcroft et al, Unmanned aerial systems (UAS) operators' accuracy and confidence of decisions: Professional pilots or video game players?, *Cogent Psychology* (2017). [DOI: 10.1080/23311908.2017.1327628](https://doi.org/10.1080/23311908.2017.1327628)

Provided by University of Liverpool

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