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Defence Innovation Network Grant Scheme: Pilot Project

HMI FOR MULTI-UAS MISSIONS

PROBLEM

Currently, fatigue management for crew flying unmanned aerial systems (UAS) is based on guidelines for pilots of manned aircraft. During operations in Afghanistan, the highest incidence of PTSD occurred among commanders of missions involving multiple UAS. As technology progresses to more unmanned systems supported by mobile ground control stations (LAND 129 Ph3) and swarming technologies, the Army will require scientific design, testing and evaluation of UAS concepts of operation, and their effects on human operators.

RESEARCH QUESTION

What scientific methods can be used to measure stress and fatigue In UAS operators, particularly when tasked with multiple platforms?

How can new technologies and training methods support mobile ground control of UAS tasks, and manage human factors and discomfort like, for example, motion sickness?