

MEETING ABSTRACTS

PSYCHOLOGICAL APTITUDE FOR DRONE PILOTS: A REVIEW OF KEY TRAITS AND COGNITIVE DEMANDS

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The increasing reliance on remotely piloted aircraft systems (RPAS), commonly referred to as “drones”, in both military and civilian operations has highlighted the importance of understanding the psychological aptitudes required for effective drone piloting. It is widely understood that drone pilots encounter many unique challenges, such as operating in remote environments deprived of traditional sensory inputs like visual and kinesthetic feedback. While technical proficiency is essential, recent research underscores the importance of cognitive abilities, psychomotor skills and personality traits in ensuring mission success. This presentation will first examine important psychological characteristics contributing to effective drone operations, including attention, spatial orientation, stress tolerance, and conscientiousness. Furthermore, it will discuss how these traits are critical not only for the applicant selection process but also in predicting success in both training and real-world flight performance. By integrating psychological characteristics into drone pilot selection, organizations can improve the likelihood of training success and overall mission effectiveness. Ultimately, this talk aims to provide insights into the role of psychological characteristics in shaping drone pilot selection, training, and performance, fostering safer and more effective RPAS operations.

Keywords: drones; remotely piloted aircraft systems; aptitude assessment; abilities; personality

