

# Measuring Vigilance Abilities to Enhance Combat Identification Performance

**Clark Shingledecker, David E. Weldon** (*presenter*), **Kyle Behymer, Benjamin Simpkins, & Elizabeth Lerner** - JXT Applications, Inc.

**Joel Warm, Gerald Matthews, Victor Finomore, & Tyler Shaw** - Department of Psychology, University of Cincinnati

**Jennifer S. Murphy**, US Army Research Institute

The warfighter's ability to focus and sustain attentional resources in order to detect critical, but often obscure and infrequent, events is essential to Combat Identification (CID) performance. This ability, known as "vigilance" was first studied by psychologists during WWII, and subsequent research has identified a number of task variables, notably signal rate and task duration, that strongly affect detection performance. However, the search for the psychological traits that are possessed by individuals who excel at vigilance tasks has yielded equivocal results.

The objective of the ongoing research reported in this paper is to identify a battery of subjective and objective measures of individual differences in personality, performance on brief vigilance tasks, and attitudes toward a task that can predict performance on realistic combat threat detection tasks. The ultimate goal of this work is to identify the characteristics of the vigilant war fighter, develop standardized measures that can be used to optimally select individuals for duties requiring a high level of detection performance and provide objective targets for training that may increase the vigilance capabilities of all warfighter.