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Analyzing Behavioral Effects on Tactical Situational Awareness

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Author Note: Cadet Olivia Nardone is a First Class (Senior) Cadet at the United States Military Academy at West Point., where she majors in Systems Engineering with a Human Factors focus. This honors project was conducted in conjunction with her Senior Capstone group project. The author thanks Major Gregory Bew (advisor), and the Department of Systems Engineering for their support and guidance.

Abstract: The purpose of this study is to apply two existing concepts to a developing methodology surrounding measurement of situational awareness at the small unit tactical level. The Tactical Situational Awareness Test (TSAT), a modification of the Situational Awareness Global Assessment Technique (SAGAT), is a method of measuring situational awareness at the small unit tactical level. This method does not currently address the possible impact of an individual's behavior has on their situational awareness. To investigate what impacts behavior may have on performance, the Situation Awareness Behavioral Rating Scale (SABARS) and Mission Awareness Rating Scale (MARS) were self-administered to Cadets participating in a TSAT study. Integrating these existing methodologies, this proof of concept will assess the extent to which behavior correlates to situational awareness, as well as how the presence of an enabling technology may influence a person's self-perceived awareness. This study seeks to address whether or not an individual's self-perceived behavior correlates to their tactical situational awareness during a mission.

Keywords: Situational Awareness, TSAT, SABARS, MARS, Correlational study, T-test