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Lean Six Sigma Visual Workplace Improvement

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Author Note: Cadets Irwin, Koch, Reece and Weldon are First Class Cadets at the United States Military Academy – West Point. The Cadets are in the Department of Systems Engineering and are participating in the First Class Capstone Project Program. Major Michael Gabrhel, an instructor in the Department of Systems Engineering, has served as the primary Capstone Advisor lending information and guidance throughout the duration of the project. Colonel Donna Korycinski has served as the Master Black Belt advisor to our team and led the instructional block to complete the Green Belt training. Our clients, Robert Waskis, Stefan Debullono and Mike Berry, working at U.S. Army Armament Research, Development and Engineering Center (ARDEC) at Picatinny Arsenal, provided the problem, research information, and funding while continuing to provide help throughout.

Abstract: A 2011 survey at Picatinny Arsenal found opportunities for improvement in information and data management systems within ARDEC's enterprise operations. To address these concerns, The Lean Six Sigma Competency Office (LSSCO) introduced Visual Workplace tools throughout Picatinny Arsenal that have since yielded an unsatisfactory utilization rate, with only one of four pilot programs meeting all requirements. Adhering to the Lean Six Sigma based DMAIC (Define, Measure, Analyze, Improve, and Control) process, we conducted on-site interviews with stakeholders which highlighted that the overarching problem faced by the LSSCO was a balance between satisfying ARDEC's metrics and client organization's desires. Our team has completed the first three phases of the DMAIC process and is currently developing and testing potential solutions in a Cadet company at West Point to validate the efficacy of our work.

Keywords: Visual Workplace, Continuous Improvement, Lean Six Sigma, Visual Board, Process Integration, Process Implementation, Lean Six Sigma Competency Office, Process Utilization