

Proceedings of the Annual General Donald R. Keith Memorial Conference
West Point, New York, USA
May 4, 2017
A Regional Conference of the Society for Industrial and Systems Engineering

Small Arms Fire Control Capstone Project

Kenneth Krupa, Jacob Shepherd, Joseph Walker, and Pamela Wishart

United States Military Academy

Corresponding author's Email: Pamela.Wishart@usma.edu

Author Note: First Class Cadets Krupa, Shepherd, Walker, and Wishart are seniors at the United States Military Academy (USMA). This report is their final capstone article as part of their Systems Engineering coursework at USMA. The cadet team would like to thank our project client from the Program Executive Office (PEO) Soldier, Mr. Ross Towers and our capstone advisor, Dr. Christopher Morey.

Abstract: The methods and equipment used to fight wars is constantly changing. For the United States Army to maintain an advantage, it must stay at the forefront of these changes. The Small Arms Capabilities Based Assessment conducted from 2008-2014 identified gaps pertaining to small arms fire control (SAFC). These gaps included areas such as engagement time, target identification, and probability of hitting the target on the first shot. As a result of these gaps, Program Executive Office (PEO) Soldier undertook an effort to develop the SAFC System. In developing this system, the Project Manager (PM) for Soldier Weapons (SW) must make decisions regarding the level of integration versus the level of modularity that the SAFC components should be. Through coordination between the United States Military Academy (USMA) and PEO Soldier, our capstone team was asked to assist PM SW in identifying the degree of integration for the SAFC system. We currently have the model necessary to give a recommendation to PM SW, but are just waiting on data for input.

Keywords: integral, modular, Small Arms Fire Control System(SAFC)