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Leadership Through Systems Engineering

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Jason Morris, Thomas Holzer, Timothy Eveleigh, Shahryar Sarkani, Creating an Agile Systems Engineering Technical Review Process

Abstract: The implementation of Agile methodologies within United States Department of Defense (DoD) programs become hindered when subject to traditional Systems Engineering Technical Review (SETR) processes. The current SETR structure, while important, does not lend itself to an Agile development timeframe. This presentation highlights the research of multiple programs employing both Agile methods and a SETR process, identifying the translation of traditional SETR best practices to the Agile environment. This research will focus on determining the best overall approach to implementing Agile methodologies while still capturing the essentials of the SETR process. The presentation will provide an Agile SETR process that allows for better use of Agile methods. Programs and leadership looking to implement Agile methods and are concerned about the impact to SETR events, will benefit from this discussion.

Preliminary research shows that implementing Agile methodologies under a traditional SETR process requires an adjustment of either the Agile methods, the SETR process, or both. Programs within the DoD that utilize Agile methodologies, make adjustments to those methods and/or the SETR process of which are traditionally kept within the specific teams. Lessons learned are rarely captured and reused within other programs across the DoD. There is a need to research and collect the best practices used for adjusting the SETR process and Agile methods in order to create a new, more Agile, SETR process to complement the traditional SETR process. This new process will allow for a more streamlined use of Agile methodologies without reducing the critical benefits of the SETR process.

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