OPERATIONAL TEST IN AGILE DEVELOPMENT: VETTED CAPABILITY AT THE SPEED OF RELEVANCE



NAVAL Postgraduate School

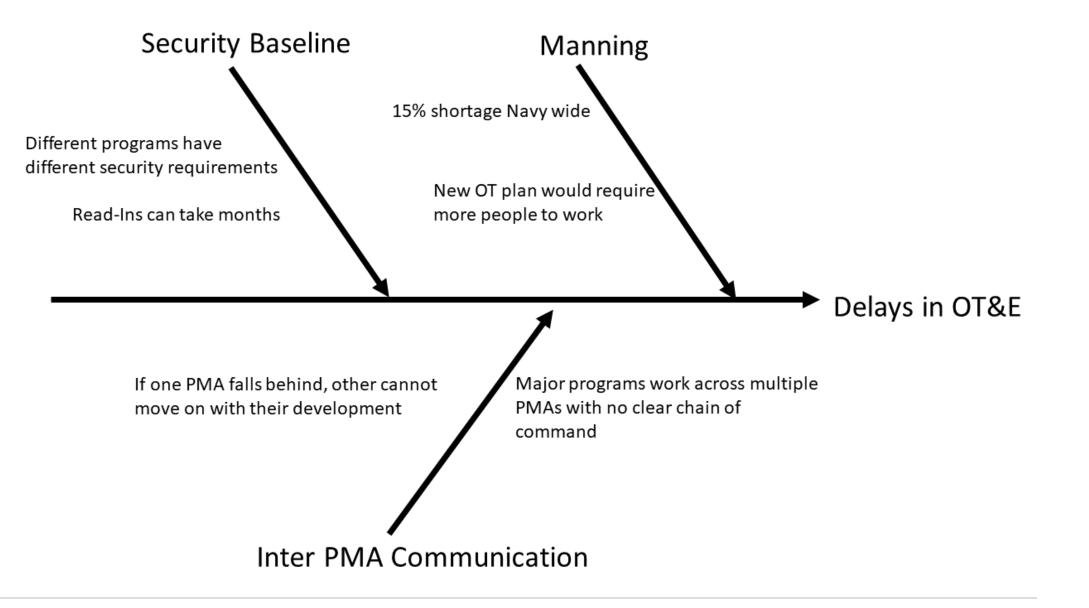
Abstract

The traditional Operational Test process and timeline are no longer sufficient to keep pace within an Agile software development environment. Agile development requires Operational Test to be just as agile while still ensuring the adequacy and sufficiency required to keep the Fleet's trust in new capabilities.

In order to accomplish this, we recommend five initiatives that will help the current OT&E process. Those initiatives are: The "Pulverizer," an agile TEMP, universal test plan working group, an integrated operational test assessment, and a dedicated annual OT&E period. These initiatives make the bureaucratic requirements for OT&E much more streamlined and agile. It ensures an annual schedule all stakeholders can work towards and drive down many of the important OT&E decisions to the test squadron level.

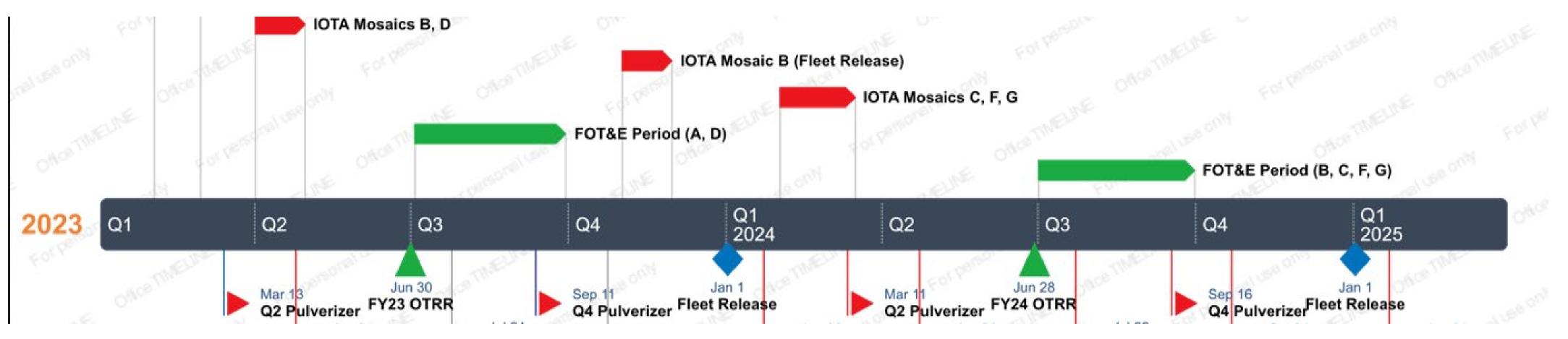
Methods

- Case study and root cause analysis of traditional OT&E processes versus new Agile development timelines
- Applied "lean" methodology to ensure test plan and execution can keep up with the quick iterative Agile development process



Results & Their Impact

- Traditional OT&E test plan timelines took on average of a year to develop with an additional 8-month average test period. Well outside regulatory 1-year annual deployment within the software acquisition pathway.
- Leaned unneeded or fundamentally changed processes to develop new test planning and execution processes



Proposed timeline for execution of Test and Evaluation within an Agile development construct.

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