

Department of the Navy SBIR/STTR Transition Program

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Topic # N193-A01

Business Operations Streamlining System (BOSS)

Stottler Henke Associates, Inc.

WHO

SYSCOM: NAVAIR

Sponsoring Program: Digital Transformation

Transition Target: NAVAIR PMAs

TPOC:

(301)342-4781

Other transition opportunities: BOSS will help Navy and DoD managers of developmental programs track risks and cope with emergent issues that threaten program disruption. Commercially, BOSS can also assist program managers at DoD primes and other organizations. We are working with Northrup Grumman to identify potential fits for BOSS within their existing program management processes and tool suites. The Aurora scheduling engine incorporated into BOSS was developed by Stottler Henke under NASA SBIR sponsorship and has been the basis for \$38M in non-SBIR business with Government and industry.

Notes: An unmanned MQ-25 Stingray aircraft refuels a manned F/A-18 Super Hornet



<https://www.navy.mil/Resources/Photo-Gallery/igphoto/2002736395/>

WHAT

Operational Need and Improvement: "Know your risks, and you know your program." Developing modern complex naval systems is a risk-prone activity. Navy program managers must (1) identify risks; (2) track those risks; (3) prioritize emerging issues and their consequences; and (4) identify mitigations and program repairs. The earlier that risks are identified, the more options remain available. The more thorough the option analysis, the better the outcomes with respect to cost, schedule, and performance.

Specifications Required: Apply artificial intelligence and machine learning technologies to reduce the number, scope and cost of mistakes, increase productivity, and allow allocation of DoD resources to higher-level and mission-priority activities. For project management, reduce the time and money spent assessing the current state of projects with respect to cost, schedule, and performance; identify risks, optimize allocation of resources, and automate routine project tasks. Seek workforce productivity and efficiency enhancement, and automation of business systems and digital workflow.

Technology Developed: BOSS applies a range of artificial intelligence techniques that exploit program-relevant data, historic cross-program data, and program management expert knowledge to identify, track, evaluate, visualize, and more quickly resolve risks and emerging issues.

Warfighter Value: BOSS's support for risk brainstorming informed by records of previous projects will enable more complete risk coverage to minimize surprises and failures. Its advanced data analysis and extrapolation will provide early warning of issues, leaving more time for program adaptations that minimize cost and schedule impacts. Using expert knowledge in schedule and cost analysis, BOSS will rapidly and accurately determine risk/issue status and generate consequence assessments. Additionally, generation of visualizations and intelligent advice will enable better understanding and faster identification of effective responses that keep programs on track.

WHEN

Contract Number: N68335-20-F-0564 **Ending on:** November 4, 2021

Milestone	Risk Level	Measure of Success	Ending TRL	Date
End of Phase I	Med	Concept of Operations defined and supporting technologies clarified.	3	April 2020
Expert Validation of Phase II Capabilities	Med	Presentation to recently retired PMAs validates prototype direction and capabilities	4	July 2021
Experimentation with Phase II Prototype	Med	Experiments with prototype on representative program data	5	April 2022
If Phase II.5 awarded, NAVAIR PMA experimentation with Prototype	Med	Positive feedback from NAVAIR PMA piloting use of BOSS.	6	January 2023

HOW

Projected Business Model: We will start with direct sales to Navy and DoD customers, then use initial success stories to broaden our efforts, supported by primes and other licensees. This approach worked to build our highly successful Aurora scheduling engine business, a technology that serves as a key underlying component of BOSS. Stottler Henke has successfully transitioned a range of SBIR-funded technologies to Government and commercial customers using a variety of techniques, including (1) direct sales of software customization and support services, (2) subcontracting through major primes, and (3) licensing technology to vendors best positioned to reach a target market. Since BOSS is widely applicable, all of these approaches will likely play a role in its commercialization.

Company Objectives: Our immediate objective is to meet with Navy Program Managers who would use BOSS to manage their programs. To ensure BOSS fits within NAVAIR's and DoD's larger context of emerging methods, processes, and tools, we would also meet with digital transformation visionaries and program management tool providers from Navy PEOs and beyond. We also seek meetings with representatives of DoD prime contractors to demonstrate the benefits BOSS has for program cost, schedule and performance either for internal program management needs or marketing to Government and commercial customers.

Potential Commercial Applications: With customization, BOSS can be applied to any program where there are substantial risks to be identified and monitored, and emerging issues to be recognized and resolved. This is truly a dual-use technology.

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