Topic: N18A-T003

Prevailance, Inc.

Repurposing Computational Analyses of Tactics for Training Assessments
FOX TWO is a software technology that leverages big data analysis of training to provide future training scenario recommendations and trend analysis. FOX TWO automatically analyses training, tracking an individual's currency and proficiency of skills throughout their career. Prevailance Inc. provides high-value services and technologies to the DoD as they face tomorrow's threats. We bring a unique combination of broad operational experience and deep analytical skills to address our customer's requirements. Prevailance is focused on providing solutions to identified shortfalls in military training. The Navy's helicopter community has been involved in the development of this project, integrating with Prevailance's veteran Naval Aviators to address identified areas of deficiency. Prevailance minimizes risk by working closely with the customer, ensuring compatibility with current systems and cybersecurity requirements.

Technology Category Alignment:

Human Systems
Modeling and Simulation Technology
Human Systems

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SYSCOM: NAVAIR
Contract: N68335-19-C-0584

Department of the Navy SBIR/STTR Transition Program

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NAVAIR 2020-827

Topic # N18A-T003

Repurposing Computational Analyses of Tactics for Training Assessments

Prevailance, Inc.

WHO

SYSCOM: NAVAIR

Sponsoring Program: PMA-205

Transition Target: MH-60, FA-18, E-2

TPOC:
(407)380-4672

Other transition opportunities: USN/USMC/USAF/USA Initial Flight Training through pre-deployment training, Navy Surface Warfare training, Navy Sub-surface Warfare training, Unmanned vehicle training

Notes: FOX TWO can be used to optimize skill proficiency of any unit that generates training data and whose performance can be evaluated against Subject Matter Expert (SME) and Weapon School measures of performance (MOPs) standards.

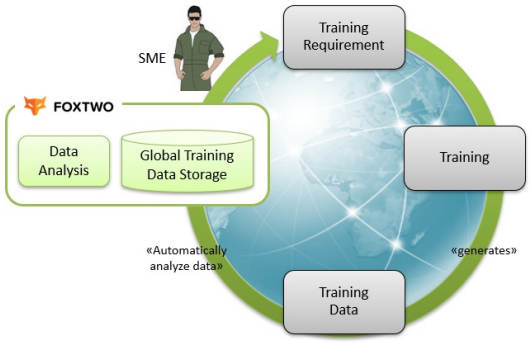


Image courtesy of Prevailance Inc. 2018

WHAT

Operational Need and Improvement: Naval Aviation uses the concept of a Training and Readiness (T&R) Matrix to show the current readiness level of its units. By ensuring certain mission essential skills are trained to a predetermined periodicity, the matrix ensures aircrew are properly trained and ready for combat. These T&R matrixes ensure currency in those skills if followed properly. To assist in validating proficiency in these same skills, NAVAIR has asked for a software technology that leverages data science and advanced computational analyses of tactical data sources to improve training scenarios and assessments that make training more adaptive, efficient and effective. By developing an automated feedback loop that enables individualized recommendations for training based on previous training assessments, we can ensure all mission essential skills are trained to required proficiency.

Specifications Required: None

Technology Developed: Team Prevailance developed FOX TWO, a software technology that leverages big data analysis and learning systems to analyze large quantities of training data to provide trend analysis and future training recommendations. FOX TWO collects and stores all training data from aircraft and training devices, analyzes aircrew performance based on SME and Weapon School MOP standards, and provides a feedback to future training to ensure T&R currency while optimizing skill proficiency. This performance tracking is done throughout an individual's career, allowing for a more thorough and consistent analysis of training progression while enabling Training Officers a more holistic view of their unit's readiness level. Through individual performance and T&R Matrix tracking, FOX TWO provides scenario recommendations that ensure aircrew maintain T&R Matrix currency, while focusing on weak skill development.

Warfighter Value: Military commanders are required to assess the combat capability of their units constantly to ensure they are ready to deploy and face an enemy when required. At the same time, those commanders must optimize the use of allocated training funds to ensure their unit's currency and proficiency. FOX TWO was developed to assist leaders by allowing consistent analysis of training without constant training officer oversight, long-term skill trend analysis through the tracking of training data over an individual's career, and the optimization of future training using big-data analysis and learning systems.

WHEN

Contract Number: N68335-19-C-0584 **Ending on:** August 21, 2020

Milestone	Risk Level	Measure of Success	Ending TRL	Date
FOX TWO Concept Delelopment	N/A	FOX TWO concept developed	2	October 2018
STTR Phase I Prototype	N/A	Ability to evaluate individual training skills	4	October 2018
Cessna 172 FOX TWO Simulator Prototype	Low	Ability to fully evaluate Cessna training data and make future training recommendations	5-6	August 2020
If option exercised, MH-60S FOX TWO Prototype	Med	Demonstration of FOX TWO in an operational environment	7	August 2021
Commercial sales of FOX TWO to the US Navy	Med	ATO on US Navy training systems	9	August 2022
Commercial sales of FOX TWO to the US ARMY	Med	ATO on US Army training systems	9	December 2022

HOW

Projected Business Model: Prevailance anticipates using a Software-as-a-Service (SaaS) business model for FOX TWO. This will be a combination of licensing and multi-year operations and maintenance contract for each operational user. This business model is similar to how Microsoft Office is sold today and will ensure a capability that is optimized and maintained throughout its lifecycle. The FOX TWO software will require approximately 6 months of customization to be optimized to the individual unit's training systems and performance metrics, then can be integrated with current training systems or used as a standalone unit.

Company Objectives: Prevailance provides high-value services and technologies to a cost-conscious world. We help our clients visualize their requirements, simplify their challenges, maximize their profitability and sustain their long-term success. Our goal during this SBIR development is to help military leaders optimize their training resources and maximize the mission essential skill proficiency of their units.

Potential Commercial Applications: Consistent and persistent evaluation of skills are essential to numerous industries where it is essential to maintain a professional, skilled workforce. Identifying areas of skill decay to focus annual training resources is the perfect tool in the operations officer's toolbox. Industries such as airlines, ship driving or heavy machinery require a skilled workforce where annual simulation training is already used today to refresh essential skills.

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