

SUCCESS STORY

TOPIC NUMBER: DHA17B-001 | SBIR INVESTMENT: \$1,085,766 | PHASE III FUNDING: \$20,850,222.06



OPERATIONALLY DIRECTED INSTRUCTIONAL NETWORK-ENGINEERING LIBRARY (ODIN-EL)

Valkyrie Enterprises' ODIN-EL creates an instructional environment in which Naval leadership can monitor progress toward achieving Navy readiness by defining Sailor proficiencies.

Valkyrie Enterprises, LLC

757-962-2545
Virginia Beach, Virginia 23452

<https://valkyrie.com/>

THE CHALLENGE

Over the past decade, there have been significant changes in Navy personnel training and expectations for Sailor competency. Training and intermediate level maintenance activities, where Sailors receive training and practice their skilled trades, have decreased or been removed altogether. The Navy has reintroduced and emphasized individual and team training on the waterfront to address the decreased ability for Sailors to practice their warfare skills, learn self-repair techniques, perform maintenance procedures, and troubleshoot to repair these systems. In response to this need, Commander, Navy Regional Maintenance Center (CNRMC) required engineering services to build and sustain a learning management system to manage Sailor shipboard equipment, systems, and subsystems (ESS) maintenance and repair training.

THE TECHNOLOGY

The Operationally Directed Instructional Network-Engineering Library (ODIN-EL) is a learning management system that monitors progress toward achieving Navy readiness by objectively defining apprentice, journeyman, and master craftsman (AJM) proficiencies. Developed with support from Old Dominion University, ODIN-EL provides a framework for intelligent training with feedback. This includes learning and practice as content, and the delivery of training through modern learning management systems, knowledge and skill assessment via competency-based assessment rubrics and subject matter expert guidelines linked to a competency model through a competency framework, learning artifact and information storage, a decision-making and competency assessment engine, and meaningful outputs for learners and program stakeholders. These outputs include real-time interactive dashboard visualizations and competency-based resumes.

THE TRANSITION

During Phase II, Valkyrie Enterprises partnered with Old Dominion University to develop the project into a more comprehensive training system called ODIN-EL, which became an extension of the Naval Afloat Maintenance Training System (NAMTS) program. Valkyrie Enterprises was subsequently awarded Phase III funding to continue support of ODIN-EL for NAVSEA.

THE NAVAL BENEFIT

ODIN-EL is an extension of the Navy Afloat Maintenance Training System (NAMTS) program, which is designed to improve shipboard organic maintenance, self-assessment capabilities, and material self-sufficiency, with the overall goal of improving Naval fleet readiness. The Chief of Naval Operations (CNO) established NAMTS in 1996, and Sailors are trained through the program by CRNMC. While NAMTS training occurs at Regional Maintenance Centers (RMC), Naval Shipyards (NSY), and Intermediate Maintenance Facilities (IMF), many afloat NAMTS programs have been established aboard ships across several different platforms. Managing Sailor knowledge that constitutes proficiency and competency in performing shipboard repairs is essential to improving Naval fleet readiness.

THE FUTURE

Currently, the NAMTS Program supports over 4,000 Sailors and 20 Job Qualification Requirements (JQR), including associated NAMTS Navy Enlisted Classification (NEC) codes, comprised of over 450 competencies. NAMTS is anticipated to expand to more than 6,000 Sailors and over 25 JQRs, with more than 800 competencies, to support Naval readiness goals. Valkyrie Enterprises' resultant SBIR Phase III technology, ODIN-EL, creates an environment where Naval leadership can monitor progress toward achieving Navy readiness.