

SUCCESS STORY

TOPIC NUMBER:
N07-108

SBIR INVESTMENT:
\$845,821

PHASE III FUNDING:
\$7,400,981



Photo Credit: Samantha Morse

PROGNOSTICS AND HEALTH MANAGEMENT (PHM) FOR AFLOAT INFORMATION TECHNOLOGY (IT) AND NETWORK SERVICES

Beacon Interactive Systems has made shipboard maintenance safer, quicker, and easier to track by replacing manual, paper-based tag-out systems with its digital solution, eTagOut.

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THE CHALLENGE

Shipboard maintenance is essential to ensuring Navy vessels are always mission ready. While performing maintenance on shipboard equipment, Sailors use a tag-out system to indicate what they are working on. This system alerts other Sailors that equipment is down for maintenance and protects maintenance crews from equipment being mistakenly turned on. Traditional paper-based tag-out procedures are time-consuming, open to human error, and difficult to audit, track, and manage. To address these challenges, the Navy sought a tag-out system that was faster, more traceable, and more reliable.

THE TECHNOLOGY

Beacon Interactive Systems developed eTagOut to integrate the tag-out process into a broader digital maintenance ecosystem. With eTagOut, Sailors can create, review, authorize, and track tag-outs through a centralized, digital system. It ensures maintenance steps are completed in the correct order, enforces procedural rules, and maintains a permanent record of every maintenance action while also providing instant visibility for equipment status across an entire ship.

THE TRANSITION

On February 23, 2006, NAVSEA awarded Beacon a Phase I firm fixed price contract to begin digitizing the tag-out process and reducing shipboard mean time to repair. Under this contract, Beacon demonstrated the feasibility of transitioning to a digital tag-out system that complied with Navy safety requirements. On January 27, 2012, NAVSEA awarded Beacon a Phase II cost-plus-fixed-fee contract to develop a functional eTagOut prototype and test its maintenance support capabilities.

During Phase II, Beacon incorporated Sailor feedback, worked to integrate eTagOut with existing Navy systems, and demonstrated the system in operationally relevant environments. On September 13, 2018, NAVSEA awarded Beacon a Phase III cost-plus-fixed-fee contract to deploy, sustain, and engineer eTagOut software

THE NAVAL BENEFIT

Beacon's eTagOut makes maintenance work safer, quicker, and easier to track. The digital system significantly reduces the time needed for tag-out procedures compared to its paper-based predecessor, and its automated system helps prevent equipment damage and personnel injury. By reducing repair time, critical systems spend less time offline, resulting in increased mission readiness. All maintenance activities performed using eTagOut are automatically recorded, providing leadership with instant, accurate maintenance records.

THE FUTURE

The eTagOut system has been deployed on over 200 ships across 17 ship classes and is used by Sailors around the globe daily. Beacon will continue to deploy, develop, and enhance eTagOut software, with improvements to functionality, security, and system integration currently in development.