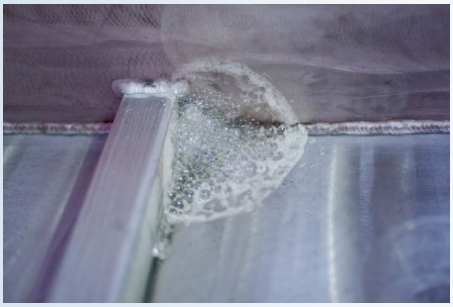
CENTER FOR NAVAL METALWORKING

Alternate Leak Detection Methods

Project Snapshot



Project Lead:

Huntington Ingalls Industries–Ingalls Shipbuilding

Project Dates:

July 2017 – May 2018

Objectives:

Implement a new inspection technology that removes the manual application of soap and water to weld joints for leak detection.

Estimated Savings:

$949K over 5 years per DDG 51 Hull
$474K over 5years per NCS Hull
$820K over 5 years per LPD Hull
$759K over 5years per LHA Hull

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Department of Defense budgets continue to shrink. Technology insertion is a key driver to reduce fabrication cost. The Navy ManTech Program is participating in this initiative, with specific focus on manufacturing processes for ship construction. The ManTech Center for Naval Metalworking (CNM) and Huntington Ingalls Industries - Ingalls Shipbuilding (Ingalls) have identified an area that can benefit from improved manufacturing processes and technologies to continue cost reduction efforts.

The goal of the project is to evaluate candidate nondestructive testing (NDT) methods as alternatives for soap bubble leak detection. Ingalls will evaluate any inspection trends that identify recurring weld defects. The envisioned improvement will implement a new inspection technology that removes the manual application of soap and water to the weld joints. This project will determine technology applicability to the shipbuilding industry, develop new processes, and confirm anticipated savings. Upon successful and timely completion of the Alternate Leak Detection Methods ManTech project and acceptance of the technology and associated business case by the acquisition Program Office, the results will be transitioned to the Ingalls facility. This technology, once implemented, over five years could potentially save an estimated $949K per DDG 51 hull, $474K per NCS hull, $820K per LPD hull, and $759K per LHA hull.

CNM is a Navy ManTech Center of Excellence, chartered by the Office of Naval Research (ONR) to identify, develop and deploy, in U.S. manufacturing facilities, advanced manufacturing technologies that will reduce the cost and time to build and repair Navy ships and aviation assets. For additional information on this and other CNM projects, please visit https://www.navalmetalworking.org/.

ATI Advanced Technology International

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315 Sigma Drive | Summerville, South Carolina 29486 | 843-760-3283