

Government Furnished Material Improvement Process

The Center for Naval Shipbuilding Technology, through its partnership with the Office of Naval Research (ONR) and Navy ManTech, recently awarded a \$1.4M project to Electric Boat Corporation (EB) to streamline the government furnished material processes associated with the construction of Virginia Class Submarines (VCS).

Reducing VCS construction costs to \$2B and cycle time to 60-months are the primary goals to increasing acquisition and maintaining the submarine industrial base. The objective of this ONR *Government Furnished Material (GFM) Improvement Project* is to pilot a streamlined GFM process that establishes common material identification between General Dynamics Electric Boat (EB), SUPSHIP, Navy Program Acquisition Resource Managers (PARMS) and Navy-contracted GFM vendors.

The existing GFM process at EB results in significant rework and high cycle times. The current process results in a mismatch between incoming GFM identification provided by the Navy or Navy-contracted suppliers and the previously-identified requirements in EB's technology data systems. This mismatch requires significant manual intervention and increased labor hours to be incurred, as the GFM material moves through the receiving, procurement quality analysis, inspection, and storage processes. A Future State Value Stream Map will be developed to identify the desired GFM process. These maps will support conduct of a Gap Analysis review, which will be performed to compare the Current State and Future State Process Maps, and review the Problems/Issues Matrix to identify the most significant areas of opportunity to streamline GFM process flow, and produce improvements in cost and cycle time performance. This list of opportunities will be documented using a prioritized GFM Improvement Action Plan, resulting in projects that will be executed in order to achieve the task goals. Acting on the prioritized GFM Improvement Action Plan, the project team will execute process changes to achieve the task objectives:

- (1) Prototype a common EB material identification between EB, SUPSHIP, PARMS, and Navy-contracted GFM vendors.
- (2) Establish a "mainstream" process, similar to the current contractor furnished material process, that will eliminate significant manual intervention (and associated VCS labor hours) required to receive and issue GFM to the manufacturing and installation trades.

The GDEB project team expects to save as much as \$758K per VCS hull at the conclusion of this 17-month project, with results potentially applicable to the Ohio Replacement Program and any other shipyard/activity using GFM.

About CNST

CNST is a Navy ManTech Center of Excellence, chartered by the Office of Naval Research (ONR) to identify, develop and deploy, in U.S. shipyards, advanced manufacturing technologies that will reduce the cost and time to build and repair Navy ships. For additional information on this and other CNST projects, please visit www.cnst.us.