



Newport News Awarded CNST Project to Optimize Work Cell Procedures

The Center for Naval Shipbuilding Technology (CNST) – through its partnership with the Office of Naval Research and Navy ManTech – recently awarded a \$434K project to Northrop Grumman Newport News (NGNN) to optimize its process for assembling small weldments from component-level parts.

Small weldments at NGNN are considered any structural part that is manufactured or assembled in the small component fabrication and assembly shop. These weldments can be as large as 4-ft by 8-ft and weigh up to five tons. The current manufacturing and assembly methods for small weldments are out of date and have not kept pace with changing construction methods and as a result are not as efficient as they could be. In addition, NGNN has determined that the current process is at maximum capacity, so it could soon become a construction bottleneck and hinder simultaneous support of two VIRGINIA-Class Submarine (VCS) hulls and an aircraft carrier.

This initiative will provide optimized material flow and work sequences, as well as specify new tooling requirements. Once implemented, this ManTech project could eliminate up to 20% of the touch-labor hours in the entire small weldments process, yielding an estimated savings of \$2.4M and \$12M (per-hull) for the VCS and CVN-21 programs, respectively. The project's results will initially be used to pursue a new small weldment production facility as well as an equipment/resource upgrade of an existing NGNN facility. Implementation activities are scheduled to commence in November 2008.

Findings from this project should be applicable and benefit construction activities at other major shipyards as well, especially VCS co-build partner General Dynamics Electric Boat.

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.

