

## CNST Awards First Project

CNST, the Navy's newest ManTech Center of Excellence, has awarded its first project and has ONR approval for a second.

The project selection process began when ONR designated the VIRGINIA-Class submarine and CVN-21 as the platforms of interest for FY04-funded projects. CNST worked with the builders of these ships, Electric Boat Corporation (EB) and Northrup Grumman Newport News (NGNN), to identify their highest priority Manufacturing Technology issues. Six potential projects have been identified and are in various stages of the approval, award and execution process.

For its first project, CNST has awarded EB a two-year, \$1.2M contract to employ a Product-Centric Facility Design approach to develop a conceptual design for a new facility that incorporates a Product-Centric approach to the fabrication and assembly of major structural units. This includes identifying the major product lines and the assignment of all work being accomplished in the new



**Electric Boat's Programmable Automated Welding System (PAWS).**

facility to each product line. The project will also develop procedures for increasing the use of robotic welding by assessing structural welds and determining which welds are potential robot candidates.



**The ultra-light GMAW-P welder will replace Shielded Metal Arc or "stick" welding in many outfitting applications.**

A second project approved for funding is a two-year, \$1.3M project to develop an ultra-light, Pulse-Gas-Metal-Arc-Welding (GMAW-P) power supply. A lightweight power supply that supports GMAW P has the potential to significantly increase shipyard efficiency during the outfitting process. The power supply will be man-portable and operate on 220 VAC, resulting in decreased set-up time, improved welder safety and reduced fumes and trade debris.

For this project, Electric Boat has teamed with Lincoln Electric (LE), a world leader in welding/cutting solutions. The LE/EB team will execute a five phase plan based on Lincoln Electric's ISO 9000 recognized Stage Gate development process.

### 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](http://www.cnst.us).

