



For Immediate Release:

Universal Manufacturing Constructs Award-Winning Modular Work Platform With Electric Boat Corporation

North Kingstown, RI, November 21, 2006- As the result of group participation and brainstorming, Electric Boat Corporation, Quonset Point Facility in North Kingstown, RI, and Universal Manufacturing Corporation, Zelenople, PA, designed and installed a new, modular, freestanding, highly-configurable platform for vertical hull outfitting. This resulted in a decrease in platform set up time, an increase in safety, and a significant reduction in hull outfitting time. The design won an award for: *Best Practice: Modular Work Platforms for Vertical Outfitting*.

The start of submarine cylinder outfitting begins with hull units in the vertical position, and easy access to every part of the unit. This is a major requirement for the success of the installation trades efforts. Electric Boat Corporation, Quonset Point Facility's (EBQP's) previous staging process was labor intensive. It consisted of attaching frame brackets, planks, plywood, and handrail supports onto the hull structure itself at various levels, a process that was very time consuming. The result was a constricted work space with serious space limitations for tools and equipment. Additionally, the staging had to be removed and replaced or shifted during the installation of major internal components, which added to labor costs. Utilities such as power cords, welding leads, and air and gas hoses became a cumbersome maze that inhibited good work habits and safety.

To improve this process, EBQP designed and deployed modular, reusable work platforms, which are constructed from unique, custom-manufactured staging components designed with CATIA models of the hulls. Although its components are easily erected or removed from the submarine hull section, when the section is axis-vertical, the modular work platform allows complete access to all the internal areas of the hull, and provides all the necessary supporting services and a safer working environment. Although these innovative structures were only recently deployed, early results indicate they will cause less work disruption and require less labor to erect and maintain than conventional stage building.

EBQP's new process is the result of combined team brainstorming and consists of portable, self-contained, freestanding work platforms, which can be set up rapidly and stacked at requisite levels using overhead cranes. The 7'6" platform height allows required head clearance after the installation of lighting fixtures. Utilities are kept organized by common access with built-in, in-line controls on every level. The decking and deck support arms are adjustable and/or removable to allow easy access for working on and installing the hull components. The adjustable platforms accommodate the loading of tanks, foundations, piping, and ventilation packages, and the completion of electrical work without extensive platform revision. With the new vertical work platform, the use of wood and its related labor has been nearly eliminated. The final step in the vertical construction is the blasting and painting of the hull unit. This new platform configuration facilitates the relocation of the unit to paint facilities, and thus supports the needs of the paint shop personnel.



The new platform methods and procedures shorten the time required to ready a unit for productive work from two weeks to two days, reduced budgeted man-hours, and compressed span times throughout the entire vertical outfitting process (37% in recent units). This process also reduced recordable injuries, increased the productivity of all trades, improved the organizational appearance, and raised the general morale of EBQP's employees.