

March 2009

Navy Metalworking Center Team Earns 2008 Defense Manufacturing Technology Achievement Award



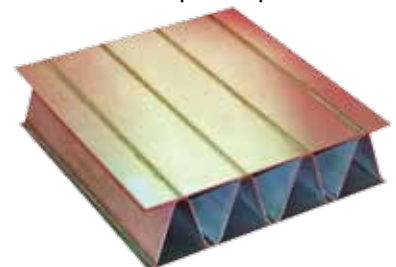
Pictured, left to right: David Roberts, Bath Iron Works; Steve Webber, Applied Thermal Sciences; Greg Woods, Office of Naval Research; Adele Ratcliff, DoD ManTech Program; Ed Sheehan, CTC; Kevin Stefanick, CTC

Work done on a Navy Metalworking Center (NMC) project was recognized with a 2008 Defense Manufacturing Technology Achievement Award, which is given by the Department of Defense Joint Defense Manufacturing Technology Panel (JDMTP). The award was presented at the Defense Manufacturing Conference (DMC 2008) in Orlando, Florida, on December 2, 2008. The NMC team and key partners were honored for developing the LASer-welded corrugated-CORE (LASCOR) metallic sandwich panel technology that is currently being implemented on the DDG 1000 class of guided-missile destroyer ships and is saving the Navy considerable acquisition cost.

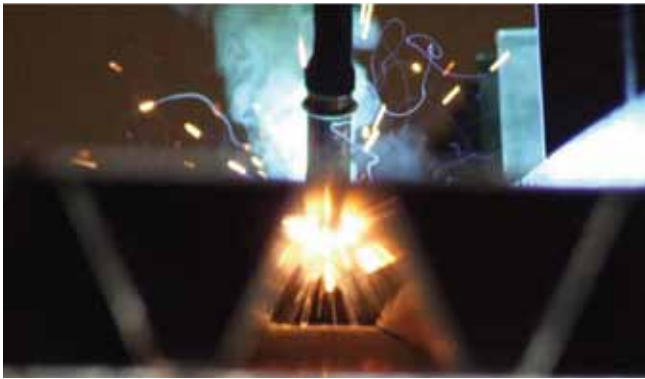
NMC has lead responsibilities for advancing LASCOR technology: specifically to establish a lightweight, stiff and modular steel structural system to reduce

weight and improve performance. The project was recognized for optimizing the LASCOR design for materials, manufacturability, joining, structural and protection performance and cost, as well as successfully manufacturing large (78 x 240-inch) LASCOR panels of CRES 2003, a lean duplex stainless steel from Allegheny Ludlum. Testing has shown that these panels provide enhanced strength, protection and corrosion resistance.

As a result of the advancements in LASCOR technology made in the NMC project, Concurrent



Stiff, lightweight metallic sandwich panels offer the potential for significant weight and cost reductions.



Detailed view of stake welding with hybrid filler.



Laser-welded metallic sandwich panel.

Technologies Corporation (CTC), which operates NMC, was able to contribute to a separate effort on DDG 1000. In July 2007, Applied Thermal Sciences, Inc., (ATS) of Sanford, Maine, won a multimillion-dollar contract from General Dynamics Bath Iron Works (BIW), to develop, test, and manufacture ship sets of Deck Edge Safety Berms and Personnel Safety Barrier Panels for DDG 1000. CTC is a subcontractor to ATS and will provide design, testing, evaluation and documentation under a three-year subcontract. LASCOR technology is estimated to have significantly reduced the Navy's overall acquisition procurement cost based on increased competition and a low-cost solution.

Ms. Adele Ratcliff, Director, DoD ManTech Program, Deputy Undersecretary of Defense (Advanced Systems

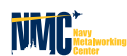
& Concepts), presented the award. The Defense Manufacturing Technology Achievement Award recognizes and honors individuals most responsible for outstanding technical accomplishments in achieving the vision of the Department of Defense Manufacturing Technology Program. The vision is to realize a responsive world-class manufacturing capability to affordably meet the warfighters' needs throughout the defense system life cycle.

The NMC LASCOR Phase II project team members included the Office of Naval Research, BIW, ATS, Northrop Grumman Shipbuilding, Naval Surface Warfare Center Carderock Division, Naval Sea Systems Command and the Institute for Manufacturing and Sustainment Technologies.



Closeouts can be incorporated into panel designs to suit a variety of application needs.

All photos courtesy of Applied Thermal Sciences, Inc.



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