

# FORCAST

The Newsletter of the American Metalcasting Consortium

# AMC

## Rapid Prototyping Yields 22% Cost Savings for DLA

As part of the AMC's Casting Solutions for Readiness (CSR) program, the CSR CAST-IT Team provides workforce development seminars to Defense Logistics Agency (DLA) personnel. These seminars include tours of foundries so DLA can gain exposure to the casting manufacturing process and talk directly with industry personnel. One of the foundries that regularly provides tours is Danko Arlington in Baltimore, MD, which specializes in the production of aluminum and bronze sand castings.

Danko Arlington invested in rapid prototyping (RP) technology after discussing DLA's needs with the Aviation Forging and Casting Assistance Team (AFCAT) as part of the CSR CAST-IT seminars. Danko Arlington now uses Fused Deposition Modeling (FDM) to convert a computer-based model into a 3-D printed pattern. The printed piece is an exact pattern of the needed casting. "It is exciting using new technology in a traditional industry," John Danko, President of Danko Arlington, said.

As an example, Danko Arlington was able to rapidly produce aluminum sand castings for the Boeing Tanker Aircraft KC135. Danko Arlington used RP to make the new parts. In this case, DLA issued a solicitation for only two castings, with no existing tooling available. The part was previously made as a magnesium casting, but was now solicited as an aluminum casting. Including CAD/design time, Danko Arlington required less than three days to manufacture the foundry RP tooling. The alternative of using a conventional or CNC-cut casting pattern would have taken up to at least fifteen days. The tooling cost savings, combined with the reliability and accuracy of the RP tool, enabled Danko Arlington to produce the parts with a cost savings of 22% relative to previously purchased parts from another supplier.



*Structural Support Fitting  
Casting from Danko Arlington*



*Boeing Tanker Aircraft KC135*

## AMC at the 2013 CastExpo & Metalcasting Congress



AMC participated as an exhibitor and provided technical presentations at the 2013 CastExpo & Metalcasting Congress sponsored by the American Foundry Society (AFS). This is North America's largest annual event for the metalcasting industry, combining an exhibition of major industry suppliers of equipment along with technical, management and research presentations from experts around the world. This year's event took place on April 6-9, 2013 at the America's Center, St. Louis, MO and was attended by approximately 8,000 industry and government representatives.

**AMC**  
American Metalcasting Consortium

Visit the AMC Booth & Technical Presentations at:

NADCA's Die Casting Congress & Tabletop  
September 16-18, 2013

Kentucky International Convention Center, Louisville, KY



For more information about AMC go to: <http://amc.scra.org>.

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