buyCASTINGS.com has teamed with the South Carolina Research Authority (SCRA) to develop, deploy and integrate a fully deployable TacFab, the Tactical Metal Fabrication System. The project team includes SCRA, SeaBox, Ajax Tocco, and Thermo Fisher. Together with the Army’s operational Rapid Manufacturing System (RMS), TacFab will support significant and synergistic capability to support the warfighter in theater with the rapid re-supply of a broad spectrum of cast and machined parts for Army combat and combat support units. It is anticipated that the contract will be awarded to SCRA within the next 60 to 90 days.

TacFab will augment the RMS by providing the means to produce on-demand cast parts to duplicate original parts. This new resource would be deployed to the same locations as RMS so that when a warfighter brings a defective or worn or broken part to RMS and it is determined to be a cast part, the mobile metal casting asset could be immediately tasked to make the required casting. Once made, the casting would then be final machined back in RMS.

Additionally, TacFab will support Army Continental United States (CONUS) RESET activities at various locations with a cast part production capability. The system will have dual-use applications as well, particularly in the U.S. energy sector (e.g., utilities), municipalities (e.g., water handling, treatment, and delivery systems) and in Homeland Security for disaster response support.

We have targeted several military parts for demonstration at the TacFab Demo Facility (TDF) in Dayton, Ohio. As shown below, the steel cast part such as this bracket which goes in the controller for the HumVee Gun Turret. This critical part may arrive at the TacFab deployment site in-theater broken or bent. Since this may be causing the machine gun turret to be down hence the entire weapon system to be inoperable, this is an urgent repair/replacement need in battle. TacFab would reverse engineer this cast steel bracket, cast it and deploy it over night. Continued on Page 7
Two new additions to the BuyCASTINGS staff

“Welcome aboard and we look forward to continued growth!!”

Earlier this year, Mr. Stefan Susta joined the BuyCASTINGS.com team as the VP of Government Programs and Commercialization. His focus will be on business development, commercialization of our R&D activities, and managing the government project portfolio. Prior to joining BuyCASTINGS.com, Mr. Susta was the Director of Technology Transfer Programs at the Edison Materials Technology Center (EMTEC), and a technical consultant for the Department of Defense. Mr. Susta graduated from Virginia Tech with undergraduate degrees in Chemical Engineering, Chemistry, and German and received an MBA from Wright State University.

With a solid background in tooling, Mr. Nick Cannell has over 20 years of experience in metal castings, including positions on production, management and R&D sides of the casting industry. He is a member of the Ohio Cast Metals Association, a past Chairman with both the Canton chapter of the American Foundry Society, and the Cleveland Chapter of the North American Die Casting Association. Over the last 12 years, Mr. Cannell has been primarily involved in technology transfer with the casting industry. He has helped many foundries incorporate new technologies such as rapid prototyping, solidification modeling, and computed tomography reverse engineering/metrology into their everyday operations. He has been instrumental in assisting foundries to expand their capabilities. This has helped these foundries be more competitive and increase their revenues. For example, Laszeray Technology of North Royalton, Ohio attributes 50% of their total business to Mr. Cannell's assistance in securing casting work utilizing the latest rapid prototyping techniques. He takes a "hands-on" approach to projects by visiting foundries and buyers, learning of their needs, and then putting them in contact with companies or organizations that can help them improve and diversify their businesses. Much of this work has been with small foundries, which constitute a large share of the casting industry. With BuyCASTINGS, Nick will be in charge of program management, plant start-up, and business development.

Growth in the global markets…OR MAYBE NOT

By Neil Chaudhry

BuyCASTINGS has doubled revenue three times in the past four years NOT because of the global growth but primarily because of the orders for our foundries right here in the USA! "...WHO WOULD HAVE THOUGHT IT?"

Everyone thought that the internet would allow us take casting orders to China and India and Brazil…NOT REALLY TRUE. Yes, the internet made it easier for someone to shop, search, and procure but ultimately where people buy is where they find value, quality, and human service (like people who can speak in English…simple STUFF like that.)

While the media talks about the FINANCIAL CRISIS, THE CREDIT CRUNCH, THE VOLATILE MARKETS, AND THE MORTGAGE MELT DOWN, our foundries are seeing some of the strongest growth and order stream in 10-years. Yes, we are affected by the crazy metal prices, and the cost of energy going through the roof BUT the demand for castings in the niche markets that we serve is as high as or higher than ever in history. We do almost everything except automotive stuff…we stayed away from that from day one. We choose to work with buyers that understand what’s good for them is also good for the supplier - a profitable relationship. We also innovate, create, and add value with respect to quality, cost, and quick turn around and follow through!!

At BuyCASTINGS, we do not make any cold calls…the vast majority of our buyers come from word of mouth. Yes, we are one of the dot coms that survived but we have never relied on the internet or on our website alone for leads or business or customers or orders. We realized very early on in the dot com mania that it was NOT about B2B (Business to Business e-commerce, as people used to refer to us) INSTEAD IT WAS ABOUT P2P (PEOPLE TO PEOPLE.) The internet was and is just a tool to make life easier…no different than the fax machine, cell phone, or computer.

SO HERE IS WHAT WE SEE GLOBALLY...

Europeans are coming to the USA -- not just to visit Disney World but to set up manufacturing plants, procurement offices, and buy goods here for export to Euro-land and for sale in the US.

Indians are too busy serving their domestic market - foundries there are growing at 20 to 40% or more per year, primarily by serving the domestic demand and not necessarily looking to export to US.

Chinese prices are going up fast -- as the subsidies are going away, currency conversion is not as favorable, AND the prices of metal and energy are much higher.

OR MAYBE NOT

CAST EXPO 2008, SPRING EDITION, Issue 18
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Featured Stock Equipment – New Arrivals

Molding
- Dismatic, Model 2110, Core Setter, AMC, SBC (new 1995)
- Dismatic, Model 2013 MK4-B PLC, Core Setter, AMC, SBC, Spares (new 1988 - 2 available)
- Cope and Drag Squeezers, Osborn, BMM, International, Spo, IN STOCK
- Hunter Line, Model HMP-18C with 3 Level Stacking Turntable, With Spares, 18” X 20” Mold Size
- Hunter Line, Model HMP-20C with 3 Level Stacking Turntable, Many Spares, 20” X 24” Mold Size
- Hunter Machines, Models 10, 20, 30, and 32, All Ages with PLC’s

Shakeouts and Media Drums, Screens
- Late Model DIDION RS-200 Shakeouts, (1) Didion MD-100 Media Drum
- Like New SIMPLCITY Screen, 48” Wide X 10’ Long, Double Deck, 10 HP

Sand Mullers
- Late Model SIMPSON 2F Sand Muller, Rebuilt by Simpson in year 2002
- B&P 85-B Medicator with HARTLEY Bond Determinator and Bond Transporter, Allen Bradley
- Simpson Multimull Mullers, Model 215G, 22G, 26G

Induction Furnaces
- ABB Induction Furnace, 1994, ITM-6000, 1250 Kw, 240 Hz, 3T Steel Shell, Complete
- Inductotherm Power Trak, 1500 Kw, 200 Hz, (2) 4T Steel Shells, With Spares, 1985
- Inductotherm Power Trak, 125 Kw, 3000 Hz, 500 Lb. Hydraulic Box, Cooling
- Inductotherm Power Trak, Used for Holding, 500 Kw, 100 Hz, 4T Steel Shell, Late
- Pillar MK7, 1500 Kw, 200 Hz, 4T Steel Shell

Miscellaneous
- LECO C-200 Carbon Determinator, With Spares, Spectro Spectrometers in stock
- HI VAC 75 HP Industrial Vacuum, Late Model
- Hydraulic Wedge with Hydraulic Pump and Controls
- Colossio 800 Ton Die Casting Machines, UBE 800 Ton RHEOCAST Die Casting Machine, Late

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- Manage procurement teams
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- Alternate material analysis
- Program management

Procast, Opticast, Optistrut, All major CAD packages

References: DOE, PPPL, General Electric, WPAFB, P & G

Contact:

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Dayton, Ohio
The operational scenario is for a broken Cast Steel Bracket to be a critical need item for one or more HumVee weapon systems. The TacFab mission is to scan the broken part(s), generate CAD data to include an STL file, use the data as input to the Mold Build Machine, make the mold, cast the part(s) and deliver the part to the warfighter in hours or days vs. weeks or months for the conventional part re-supply system.

"We look to you to help us with castings, it's something we don't do everyday like you do"
West Coast Manufacturer

"Thanks for presenting me all the different casting options. There is a lot to know, your guidance has helped."
North Carolina Casting Buyer

"We appreciate your honesty…a big thank you for catching the error and issuing a credit to us."
Ohio Purchasing Manager

"Together with buycastings.com, we are helping our customers succeed."
Michigan Foundry

Despite the flourishing of the Euro zone, China, India…the United States remains the world’s largest financial market and we see a bright future for our manufacturing and foundry sectors….Sorry but the pundits and the professors are wrong in predicting the death of manufacturing in the US.
Defense Logistics Agency (DLA) Selects buyCASTINGS to Develop Low Cost Tooling for Investment Casting Patterns

Through their newly established Small Business Innovative Research (SBIR) program, the DLA has selected buyCASTINGS' FOPAT program for funding a Phase I program to develop low cost and short lead time tooling for investment casting patterns.

The DLA is responsible for providing parts to maintain military operations. These parts include many castings and machined castings and some of the parts were originally manufactured 50 years ago. This results in a problem of finding the original manufacturer and the tooling. The tooling may have been moved to another manufacturer or just completely lost or misplaced. The parts are typically low run quantities and tooling is a significant portion of the overall cost and time to get replacement parts.

buyCASTINGS working with FOPAT LLC have developed a new multi-component foam casting pattern for investment casting. This material can be injected into traditional aluminum tooling but has shown promise with injection into alternate molding materials. The DLA funded phase I program will look at a few of the potential tooling materials. They are wood, Ren board, Stereolithography (SLA) and silicon rubber molds. Since the FOPAT material is injected into the molds with low pressure and temperature and does not need to be cooled to extract heat from the tool, these tooling materials may be cost effective as well as reduce the tooling lead-time.

The three parts that will be evaluated during the program, which runs thru May 2008, with a possible follow on after that, are a machine gun turret bracket for HumVee's and MRAP's, an aerospace support structure and a cast duplex stainless steel hinge for the latest MRAP vehicle.

The program manager is Mr. Dan Gearing for the DLA headquarters in Ft Belvoir, VA. buyCASTINGS has teamed up on this program with FOPAT LLC, with Mr. Raymond Monroe from the Steel Founders Society of America SSFA (www.ssfa.org) and NexTec of Springfield, OH.