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NTMA-U'S PARTNERSHIP WITH THORNTON ACADEMY BRINGS WORKFORCE DEVELOPMENT TO THE HIGH SCHOOL LEVEL

In addition to the almost 250 NTMA-U traditional students, NTMA-U has 20 high school students preparing for careers in manufacturing. —p11

TOLEDO CHAPTER'S NEW NAME: WESTERN LAKE ERIE CHAPTER

NTMA's Toledo chapter has formally changed their name to Western Lake Erie Chapter of the NTMA.—p9

MIDTERM ELECTION RESULTS: A NEWLY RED CONGRESSIONAL MAP

By now, most of the results of the 2014 midterm elections are in and the map looks decidedly different than it did on November 3rd. —p3

FIVE ACTION STEPS TO INCREASE THE SUCCESS OF HIRING MILITARY CANDIDATES

Too often military hiring efforts are viewed by companies only through the lens of patriotism or a sense of obligation.—p27

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TABLE OF CONTENTS COVER STORY - 2014 FALL CONFERENCE REVIEW 16-21 **ADVOCACY AWARDS** MASSECON NAMES ACCUROUNDS A COMMUNITY HERO AT CALENDAR OF EVENTS......31 **COMPANY NEWS** CONGRESSMAN WALBERG AND STATE REPRESENTATIVE SHEPPARD TRANSMISSION MANUFACTURING WITH STEEL TURNING GRADES TCI PRECISION METALS NAMES BEN BELZER PRESIDENT AND COO. 30 NIMS' NEW WEBSITE PROVIDES NEW TOOL FOR YOUR TALENT SEARCH. 31 **ECONOMY** FIVE ACTION STEPS TO INCREASE THE SUCCESS OF HIRING **EDUCATION** NTMA-U'S PARTNERSHIP WITH THORNTON ACADEMY BRINGS WORKFORCE NTMA-U 2015 SPRING SEMESTER ENROLLMENT IS NOW OPEN NTMA-U LAUNCHES THORNTON ACADEMY STUDENTS INTO WORKFORCE 12 **NATIONAL EVENTS** NTMA CHAPTER NEWS PITTSBURGH CHAPTER AND THE CIACCO FAMILY PASS IT FORWARD 9 TOLEDO CHAPTER'S NEW NAME: WESTERN LAKE ERIE CHAPTER 9



MIDTERM ELECTION RESULTS: A NEWLY RED CONGRESSIONAL MAP

Washington, DC – By now, most of the results of the 2014 midterm elections are in and the map looks decidedly different than it did on November 3rd. Republicans strongly held on to their control of the House of Representatives, winning at least 244 seats and giving them their largest majority in the House since 1928. In the Senate, Republicans secured at least 53 seats to flip the Senate from blue to red, with an additional seat gain possible in Louisiana pending the outcome of that state's December 6 runoff election.

It's clear that manufacturers made a difference. The NTMA PAC enjoyed a 100% success rate. NTMA members also helped drive voter turnout by downloading and displaying the One Voice "Vote for Manufacturing" posters.

So what's in store for the revamped Congressional map? On the morning after the election, news reports showed both President Obama and incoming Senate Majority Leader Mitch McConnell (R-KY) addressing the possibilities for tax reform. "We all know having the highest corporate tax rate in the industrialized world is a job exporter," McConnell said. In a separate press event, Obama said there was "an opportunity for us to do a tax reform package that is good for business, good for jobs and can potentially finance infrastructure developments here in the United States."

Yet substantive tax reform is always a complicated process. During the lame duck session, more immediate NTMA member priorities were prominent on the Congressional radar relating to expired tax provisions, including several that are important to manufacturers, such as the R&D tax credit, Section 179 expensing and bonus depreciation for 2014/2015.

The new Congress convenes on January 3, 2015. When lawmakers return from the holiday break, NTMA members should look forward to the new Congress undertaking implementation of the recently passed Workforce Innovation and Opportunity Act, a top One Voice priority for updating job training programs. This needed update provides an opportunity to reform the way that job seekers and workers connect to good jobs and acquire the skills needed for today's jobs.

In the weeks and months after the midterm elections, One Voice members should be motivated to see that manufacturers can and do make a difference in Washington when they participate in the process. NTMA members can give unlimited corporate or individual contributions to the NTMA Government Affairs Administrative Fund which supports the work done by The Franklin Partnership and Policy Resolution Group at Bracewell & Giuliani LLP. Additionally, NTMA members can make limited personal donations to the Committee for a Strong Economy (CFASE) PAC which supports pro-manufacturing Congressional candidates. For more information on how you can support NTMA's advocacy efforts, contact Dave Tilstone (dtilstone@ntma.org).





CHAIRMAN'S CORNER

TED TOTH / NTMA CHAIRMAN OF THE BOARD

This month we will review our 2014 Fall Conference in New Orleans.

The event was held in The Roosevelt New Orleans, a hotel with glamour and culture of a bygone era. The weather was perfect and the town did not let us down. There was great food, drink and entertainment all night long – all conference long!

Let me begin by noting that last year's Fall Conference in Boston was one of our best and we knew we were going to have a hard time making this year's matching its success. Well, the general consensus of those I talked to at the end of the conference was that this year's was, indeed, a great success. It was risky to change up the format, but most liked the change. The Executive Team feels that each fall conference should be slightly different from the last to keep things fresh.

The conference started with our Chapter Presidents'/Trustees' roundtable. Following the model from MFG Meeting 2014, we started this roundtable to open up dialogue between the Executive Team and chapters. It was again a success, with lots of great conversation. The event was followed by a small reception to thank all for their service.

The next day started with a first timers breakfast. I was surprised and delighted by the number of new faces at the event! In fact, 60 individuals made this their first NTMA conference - hopefully the first of many to come.

During our opening general assembly, we presented 7 service awards:

CELEBRATING 25 YEARS OF NTMA MEMBERSHIP:

 GF Machining Solutions (Lincolnshire, IL)

CELEBRATING 30 YEARS OF NTMA MEMBERSHIP:

- NuTec Tooling Systems, Inc. (Meadville, PA)
- Southern Manufacturing Technologies, Inc. (Tampa, FL)
- ProMold Gauer, Inc. (Akron, OH)

CELEBRATING 35 YEARS OF NTMA MEMBERSHIP:

- The Lloyd Company (Houston, TX) CELEBRATING 70 YEARS OF NTMA MEMBERSHIP:
 - Hobson & Motzer, Inc. (Durham, CT)
 - Ehrhardt Tool & Machine LLC (Granite City, IL)

(Wow! 70 years of NTMA membership. I bet these guys can tell a few stories about the past.)

WE ALSO ADDED FOUR CHAPTERS TO OUR STAR CHAPTER PROGRAM:

Akron Chapter

New Mexico Chapter

Rocky Mountain Chapter

San Francisco Area Chapter

Our top three graduates of NTMA-U were presented awards. Keep your eyes open for an article about them later in this issue.

The Technology Team presented a 6S Excellence Award to Hirsh Precision Products, (Boulder, CO) and encouraged others to participate in the program. During my tenure as NTMA Chair, I have had the opportunity to visit a few shops that would have no issues qualifying for the program and others that could use some assistance in their lean process to get there. NTMA has tools that can help.

This year's NTMA Honor Award recipient was Roy Vestraete of Anchor Danly (Ithaca, MI).

We heard from our President Dave Tilstone on our association and our industry. Dave will be taking over the Chairman's Corner for the January issue of The Record - we will rename the column the "President's Corner."

Mike Kartsonis, one of our NTMF's board members, introduced the Foundation's board of directors and talked about the programs they fund, including NTMA-U and NIMS. Mike encouraged all to donate to ensure that Foundation support is there for training our industry's next generation.

Mike then introduced James Wall, Executive Director of National Institute of Metalworking

Skills (NIMS). Jim talked about how NIMS is growing year-over-year and just celebrated a big landmark: they have produced over 70,000 credentials to date. The NTMA helped start it all back in 1994 and has been a strong supporter and advocate for NIMS ever since.

Following general session, we had four working lunch/team roundtables.

Our afternoon consisted of two sets of four business tracks, which included lean, conflict minerals, additive engineering, exporting, federal regulations, NTMA-U, and sales & marketing. Something for everyone.

To round out the first day, Kennametal sponsored a fabulous opening reception at the World War II Museum. Many of our members dressed up in 1940s era costumes. Members enjoyed the Kennametal Event's networking, food and beverage while listing to 40s swing music. Our members were also able to tour the Museum's second and third levels which hosted interesting displays, including full-sized bombers and fighter aircraft hung from the ceiling.

Our next day started with a WOW breakfast sponsored by Mazak, which rolled into our Board of Trustee's meeting. The results from this year's Trustee meeting will change the face of the association.

The 2014 financial report was reviewed by NTMA CFO Doug DeRose; the 2015 budget was approved. A new CPA firm was approved to perform audits. Sam Griffith was re-elected as Audit Team leader and Michael Tamasi was also re-elected for another term as an Audit Team Member.

Paul Bonin and Gary McAfee were voted onto the NTMF Board.

2015 EXECUTIVE OFFICERS ARE:

Chairman – Herb Homeyer

Vice Chairman – Dave Sattler

Treasurer - Ken Seilkop

Secretary - Matt Wardle

CONTINUED ON - P5

THE RECORD

OPERATIONS & EDITORIAL

Dave Tilstone, President Sally Safranski, Executive Editor

NTMA EXECUTIVE TEAM

Theodore O. Toth, Jr., Chairman Rosenberger-Toth – Pennsauken, NJ

Herb Homeyer, Vice Chairman Homeyer Precision Manufacturing – St. Louis, MO

Matt Wardle, Interim Treasurer J D Machine – Ogden, UT

Ken Seilkop, Secretary Seilkop Industries – Cincinnati, OH

Robert Mosey, Past Chairman of the Board Moseys' Production Machinists Inc. – Anaheim, CA

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To advertise in *The Record*, or for information on publishing your corporate newsletter or sales literature, contact *NTMA* at (216) 264-2847 or tbryson@ntma.org for advertising, ssafranski@ntma.org for editorial content.

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NATIONAL TOOLING & MACHINING ASSOCIATION

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Due to resent bylaw changes, we will be announcing the revised Executive Board after MFG2015.

The ET welcomes Matt to the Team. We feel Matt will bring a younger perspective to the team

We have three new reserve funds: Emergency Reserve Fund, Operating Line Of Credit, and a Special Projects/Opportunity Fund.

One item that we are saddened to vote on was to dissolve four inactive chapters: Puget Sound, Fort Wayne, Saginaw Valley and PA Dutch.

The next vote will impact the face of the association: The Board Structure changes included in the Code of Regulations (Bylaw) changes. These changes include:

• Increasing the number of Executive Board

Members from five to seven

- Changing the Board terms to three years with an add-on of three years
- Moving the Treasurer and Secretary offices to staff positions
- The only Board officers will be Chairman and Vice Chairman, which will be voted in by the Executive Board and approved by the Trustees
- Adding two Board members from outside the association

The ET team is now allowed to work with the Nominating Team to better define the Board needs. These are only the first few changes that may be made as teams review the governance and traditions of the association.

The last vote was a motion from the floor CONTINUED ON - P6



by Shannon Sweatman, requesting that the ET develop an implementation team, and to request the new team identify and recommend two new outside Board members before MFG2015 in March 2015.

As you can see there were many items that were voted on, a record amount, but without the discussions that had taken place during Chapter Presidents'/Trustees' roundtable (and in preparation for this meeting), we might not have had time to complete the list of items that needed a vote.

The Executive Team has been working hard to make the association more of a transparent organization. We have been encouraged with the discussions, engagement and support of the current Trustees and Chapter Officers.

After our Trustees' meeting, Fall Conference Technology Day started with two morning seminars:

Machine Interface Training sponsored by Big Kaiser

Tool Handling and Management sponsored by Mazak

We had a working lunch on social media sponsored by DMG MORI, with a panel of three presenters, each talking about different areas of social media: Gretchen Homeyer (Facebook), Maddie Wardle (LinkedIn) and Caitlin Andrews (Twitter). There have since been follow-up webinars to help those interested dig deeper into how they can implement and embrace social media.

The afternoon included four seminars:

Laser Tech Machines sponsored by DMG MORI

Options for Shop Consumables sponsored by Doosan

Quote Management sponsored by Epicor

What's Next in Technology sponsored by Okuma

These Tech Seminars were well-received, with over 70 members attending each one. The day closed with a Tech Reception in the Tech Suite area.

Our last day was started by a Team Leader's Breakfast roundtable, followed by our closing assembly which include team reports and a very informative report from The Franklin Partnership, our lobbyist which discussed information about the upcoming elections and legislative changes that will impact our business.

After the assembly, we started the first of two sets of Industry Roundtables. The morning set included the new Industry Sector Roundtables. We tried five different sectors: Aerospace/Defense, Automotive, Fluid Power, Medical and Oil & Gas. Based on feedback, future conferences will likely combine Fluid Power with Oil & Gas; we will also change Automotive to Transportation, adding trucks, off-road and agriculture. Ideas came out of these new roundtables that will benefit our members in the future.

Two team roundtable working lunches were well attended – the box-lunch setup allows time to combine lunchtime with opportunities to discuss teams' respective concerns.

The final industry roundtables were not as well-attended as normally, but just as informative. This might have been because New Orleans called – the weather was great and many members joined the optional Steamboat Jazz Cruise or other activities that afternoon.

The Steamboat Jazz Cruise was one of three optional activities held during Fall Conference. The other two were a walking ghost tour on Wednesday and the spouses' mask-making

event on Thursday.

To round out the conference we attended the masquerade Reception and Gala. Many of our members donned Mardi-Gras masks or the masks they made the day before and had a blast while bidding on silent and live-auction items donated to support the NRL and our One Voice. A great finish to a great 2014 Fall Conference!

We would personally like to thank the NTMA staff. This conference ran especially smooth. The staff was on top of everything – making our time more enjoyable and even more productive.

If you were not able to attend, there is always next year in St. Louis. Incoming Chair, Herb Homeyer is going to have a tough time topping this one, but he is always up for a challenge!

Next month's Chairman's Corner will be changed to the President's Corner. NTMA President DaveTilstone will provide a summary of 2014 events and the state of the association / industry. The Executive Team is shifting the voice of our association to our president from our chairman. The chairman changes every year, but our president is always a constant. The future Record format has not been decided; we welcome your thoughts and suggestions.

THEODORE O. TOTH, JR. (TED) / NTMA CHAIRMAN



NTMA TEAM MEMBERS ON THE MOVE

NTMA President Dave Tilstone has announced staff changes that reflect NTMA's continued improvement to meet members', chapters' and organizational needs.



Doug DeRose has been appointed Vice President, Chief Financial and Administrative Officer. Doug has been with NTMA since September 2013 in the role of Chief Financial Officer. As an officer of the association, he will continue as CFO and will now assume management responsibilities for those individuals responsible for events, the NRL and will be operations manager for headquarters. Doug will continue to report to Dave Tilstone.

Kelly Kasner has accepted the position of Membership and Chapter Services Executive for the Midwest effective December 1st. In her new role, she will be responsible for chapter support and development, sales,



retention as well as membership support and services for Michiana, Indiana, Rock River Valley, St. Louis, Milwaukee, Kansas City, North Texas and Houston Chapters. As we further implement our commitment to strengthen our chapters and members, this new role brings key regional support to them. Kelly will also continue to be our liaison with the Emerging Leaders Team. Kelly will report to Dave Tilstone.



NTMA

WELCOMES NEW MEMBERS

BLUE SUN MANUFACTURING

Northern Utah Chapter Mr. Kyle Ellis 1569 W 2650 S # 4 Ogden, UT 84401

CBIZ

National Associate Mr. Ed Hinders 625 Maryville Centre Drive, Suite 200 St. Louis, MO 63141

CENTRAL NEW MEXICO COMMUNITY COLLEGE

Education Institution Mr. John Bronisz 525 Buena Vista Drive SE Albuquerque, NM 87106

CM GRINDING, INC.

Michiana Chapter Mr. Mike Mayfield 55643 Fairview Avenue South Bend, IN 46628

COGITIC CORPORATION

Rocky Mountain Chapter Mr. Jared Veteto 5061 N. 30th Street, Suite 100 Colorado Springs, CO 80919-3247

DACO PRECISION MANUFACTURERS

Northern Utah Chapter Mr. Elliot Moses 1820 W. Printers Row West Valley City, UT 84119

GROSS MACHINE, INC.

Philadelphia Delaware Chapter Mr. Bruce R. Gross 1760 Costner Drive Warrington, PA 18976

ITS MANUFACTURING, INC.

General Member Ms. Tonya Mallory 1918 West Virginia Avenue Crewe, VA 23930

NICHOLAS MACHINE, LLC

Michiana Chapter Mr. Joseph Novak P.O. Box 114 New Carlisle, IN 46552

PLUS ONE CORPORATION

Boston Chapter Mr. Bill Thorpe 11 Mason Street Peabody, MA 01960-49-5943

RIO GRANDE WELDING & FABRICATION

New Mexico Chapter Mr. Jeremy J. Williams 10001-F Southern Ave SE Albuquerque, NM 87123

SAN LEANDRO HIGH SCHOOL

Education Institution Mr. Andres Alvarez 2200 Bancroft Avenue San Deandro, CA 94577

SEEB INDUSTRIAL. INC.

Cleveland Chapter Mr. Alex Nagy, Jr. 5182 Richmond Road, Unit A Bedford Heights, OH 44146

VANGUARD TECHNOLOGY CORPORATION

New Mexico Chapter Ms. Tanda Headrick 3167 San Mateo Blvd NE, Suite 283 Albuquerque, NM 87110

NORTH EASTON MACHINE CELEBRATES A GOLDEN ANNIVERSARY

North Easton Machine Company (North Easton, MA) celebrated its 50th anniversary on Friday, September 19, 2014 at the historic Oakes Ames Memorial Hall. The event included past and present company staff, customers, colleagues and elected officials. Company president, Jon Holbrook, was presented with a proclamation to mark the achievement



North Easton Machine President, Jon Holbrook, cuts into the cake made to resemble a machine tool as his wife, Lil, and mother, Marie, look on.

from the Massachusetts House of Representatives by Representative Claire Cronin.

In his speech that followed, Holbrook took time to thank North Easton Machine's employees, customers and others in attendance for helping North Easton become the success it is today. He spoke of the company's early days and the significance of holding the event at Oakes Ames Memorial Hall. His father, Donald Holbrook, started the company as a parttime venture in the family's garage after arranging a loan with local banker, David Ames. While supporting his family on \$100 a week at his full-time job, Donald bought several used screw machines and worked most nights until midnight. His wife, Marie Holbrook, took care of the ordering and receiving of tooling and raw materials and she handled deliveries, as well as the household.



Representative Claire Cronin presents proclamation from Massachusetts House of Representatives to North Easton Machine President, John Holbrook.

The company continues to operate on Elm Street in a 15,000 square foot building just behind the garage where it began. Today, North Easton Machine employs 25 staff and supplies precision machined components to a wide variety of industries and companies around the world. The company has been a member of the NTMA and involved in its Boston Chapter for 27 of its 50 years. You can contact them at www.northeastonmachine.com.





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Combine expert motivation with professional tools and watch your business grow at The MFG Meeting (Manufacturing for Growth), March 4-7, 2015 in Orlando, Florida.

The MFG Meeting brings together the entire manufacturing industry for a unique conference experience that provides unparalleled educational and networking opportunities. Engage with the



industry's thought leaders and discuss business solutions with your peers—all in one place.

One of the highlights of this year's conference will be a training session with Michael Hoffman, President of Igniting Performance, a company that specializes in sales, leadership and building customer loyalty. His innovative program, "Secrets of the 1%ers," taps into the methods and the motivations of the best of the best—showing you how they became influential—and how you can replicate their success.

Discover the power of motivation—and how to put it to work for you—at The MFG Meeting.

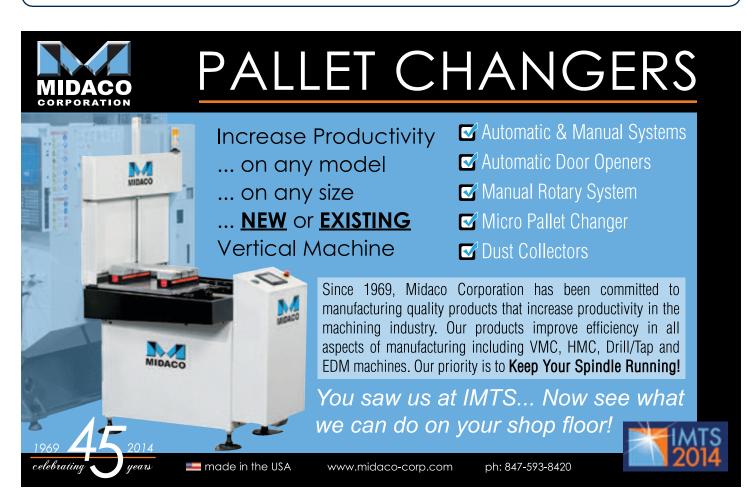
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The reservation block at the Orlando World Center Marriott is now open, with group rates available. The cut-off for hotel reservations is *January 30*; don't wait to plan your trip.

Orlando World Center Marriott 8701 World Center Drive Orlando, FL 32821 Phone: 407-239-4200 Toll-free: 800-621-0638



If making reservations via the Toll-free reservations number 800-621-0638 you will need to reference "Manufacturing for Growth (MFG) 2015 Conference" to make your reservation.





SAN FRANCISCO BAY AREA CHAPTER

The San Francisco Chapter's last 2014 meeting was held at Selway Machine Tool, with the topic "Automating the machine shop and driving bottom line profits." Both speakers, one from Trinity Automation and one from FastEms, spoke about robots and the pluses and minuses of integrating robotics with machine tools and manufacturing. The group of 45 enjoyed demos of tools, robots and

integration on Selway's shop floor and welcomed two new members: San Leandro High School (Education) and Western Tool Supply (Associate). As part of the Chapter's ongoing effort to support workforce development, a donation of \$5300 was made to Livermore High School to help the school refurbish their two lathes.

NTMA







Chapter president, Doug Hill, welcomes new members Western Tool Supply's Jerry Gerardot (above) and San Leandro High School's Andres Alvarez (left).



PITTSBURGH CHAPTER AND THE CIACCO FAMILY PASS IT FORWARD

As noted in the November issue of The Record, Ralph Ciacco's family has asked that memorial contributions honoring Ralph's legacy be sent to the Pittsburgh Chapter of the National Tooling and Machining Foundation specifically for the apprenticeship program (www.pghntma.org). As Membership Chair, Ralph had helped develop a Capabilities flyer to be used to share the NTMA/Chapter

story with prospective NTMA members. Ed Sekora, Pittsburgh Chapter Executive announced at Fall Conference that the Chapter will donate their design services to interested chapters wishing to modify this Capabilities flier for their own use. For details contact Ed (office@pghntma.org). Thank you for passing it forward, Pittsburgh Chapter and the Ciacco family.

NTMA



TOLEDO CHAPTER'S NEW NAME: WESTERN LAKE ERIE CHAPTER

NTMA's Toledo chapter has formally changed their name to Western Lake Erie Chapter of the NTMA.

Chapter President Mike Pasch noted that "the Board Members of the former Greater Toledo NTMA Chapter agreed to change the name to Western Lake Erie Chapter NTMA because we felt the name will better represent our members outside the City of Toledo. This reflects a more accurate territory for our growing membership throughout Northwest Ohio and Southeast Michigan."

NTMA



TOTH RECOGNIZES NATIONAL SCHOLARSHIP WINNERS

The St. Louis Chapter hosted National Chairman Ted Toth at their November meeting. Ted spoke with the Chapter about his theme, Retooling Precision Manufacturing, focusing specifically on the many tools NTMA offers its members. He also installed the Chapter's Board of Directors.

One of the highlights of the meeting his introduction of two

of the four NTMA scholarship winners. Ashley Robinson and Hallie Overschmidt were recognized as recipients of both the Brock Babb Memorial Scholarship and the Vobeda Memorial Scholarship. Ashley is enrolled at Southwestern Illinois College and Hallie attends Ranken Technical College. Together with St. Louis Chapter Scholarship winner Zak



Ted Toth recognizes NTMA scholarship recipients Hallie Overschmidt and Ashley Robinson. Both students were awarded the 2014 Brock Babb Memorial and the Vobeda Memorial Scholarships.

Kern, the scholarship winners presented Ted with MFG Day items: a T-shirt and a keychain tooled by SWIC precision manufacturing students.

Ted had the opportunity to tour several St. Louis area shops as part of the chairman's annual visit to the area. He said he looks forward to returning to St. Louis soon – in fact he and several hundred others will be back in October for the 2015 Fall Conference.



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NTMA-U'S PARTNERSHIP WITH THORNTON ACADEMY BRINGS WORKFORCE DEVELOPMENT TO THE HIGH SCHOOL LEVEL

In addition to the almost 250 NTMA-U traditional students, NTMA-U has 20 high school students preparing for careers in manufacturing. Thornton Academy (Seco, ME) has their local market cornered on high school training thanks to NTMA member Arundel Machine's Patrick Shrader.

But at the beginning there was just one problem - the need for trained machinist was high, and the nearest trade school or community college that had any type of manufacturing program was 45 minutes away from the company that had the need for skilled employees and the high school. And most of the students didn't have their driver's license

Enter Patrick Shrader, Arundel Machine, who got creative and began conversation with Allan Young of Thornton Academy. From that conversation they began by signing up ten Thornton Academy students for an NTMA-U online course. By the time the first two semesters were completed, ten students entered into a summer internship with Arundel Machine as well as neighboring Pratt and Whitney. The completed 200 hours of classes that will be added to 400

more contract hours will eventually be applied toward a college degree.

Enrolling in NTMA-U courses can have a variety of benefits for high school students. For students like those at Thornton Academy, they provide the opportunity to earn college credit without having to commute to campus. Online courses can also expose students to a wide range of subjects not available at their high school.

But the courses aren't for everyone. Below are four facts high school students should know about online college courses.

1. They can cut college costs. In some cases, high school students can use online college courses to lower their overall higher education spending. It further helps ease the financial burden by widening employment opportunities.

Many Maine politicians and school officials have embraced NTMA-U courses as a way to help students receive the training they need for high paying jobs upon graduation. Pratt and Whitney has offered each intern a full time position upon completion of high school.

2. They can help assess college readiness.

Taking an online NTMA-U courses while in high school can also help students get a sense of what will be expected in a college

"It's clear that in today's environment a huge proportion of students who go to college are not prepared for college-level work," says Ken McCreight, former Dean of STEM at NC State College and currentVice President at NTMA. "Taking an NTMA-U online course gives students a glimpse of what is expected in college so they won't be among those who are unprepared and therefore less successful."

Students get to work at their own pace and if a module is easy, they can just breeze

Be sure to read the following story from Thornton Academy, the site of this first NTMA-U / high school partnership. For more information about NTMA-U enrollment, please contact NTMAVice President, Ken McCreight at (216) 264-2834 (kmccreight@ntma.org).



NTMA-U 2015 Spring Semester Enrollment is now open to NTMA Members.

NTMA-U currently has almost 250 students enrolled in taking a combined total of 503 modules. This is a huge milestone, as this is the very first semester of module training!

Who in your company needs targeted training that focuses on a specific skillset?

For details, including available classes, go to www.ntma.org/initiatives/education/

MTCONNECT VERSION 1.3.0 RELEASED ON OCTOBER 24



MTConnect Institute announced the release of MTConnect standard version 1.3.0. The MTConnect standard is an open-source communication standard for interoperability of manufacturing equipment and devices. This new version provides significant features, which include inter-device connectivity to enable

machine-to-machine communication, additional data items for equipment and devices, as well as substantial improvement to readability of the standard documents. With this release, the MTConnect Institute also launched the MTConnect User Portal atMTCup.org, a community site for best practices and shared

experiences about implementation of the For more information about MTConnect go to www.mtconnect.org





NTMA-U Launches Thornton Academy Students into Workforce

Thornton Academy has become the first high school in the country to partner with the National Tooling and Machining Association (NTMA) to offer an online training curriculum (NTMA-U) that promotes advanced workforce development. The Thornton Academy NTMA-U program provides motivated students the opportunity to earn a high school diploma concurrently with a competency certificate in Precision Machining. Tom Narciso, Instructor at Thornton Academy and Associate Professor at Southern Maine Community College, said "The precision manufacturing industry is on the precipice of the long-awaited trend of diminishing supply of skilled labor. We need to put away the old stereotypes about shop class. This NTMA-U program provides another pathway for students to experience the academic rigor connected with our industry." Thornton Academy students who have enrolled and advanced in this program have already begun working at the North Berwick, Maine plant of Pratt & Whitney, a United Technologies Corporation company that designs, manufactures and services aircraft engines and auxiliary power units.

Through Chamber of Commerce events, participation in the Maine International Trade Commission (MITC), and through building a job shadow/internship program, Thornton Academy has partnered with local businesses in a number of ways. Through those relationships, the Saco town academy discovered that precision machining companies have many more positions available than they have skilled workers to fill them. From this realization, the partnership with NTMA was created. "We're a private school with a public mission. We have an obligation to prepare students for highly academic careers, but we also have to look at the range of opportunities offered by our economy. There are not enough skilled people to fill important jobs. Not every student is going to go to college. There are hands-on technical trades that need people," said Headmaster Rene M. Menard.

Nationwide, over 800,000 machine jobs went unfilled last year. According to Marcel

Bertrand, President of NTMA member Arundel Machine Tool (Arundel, ME), businesses like his are poised to grow, but can struggle without available, skilled labor. As father of a Thornton Academy student and husband to an alum, Bertrand decided to donate funds to support the introduction of the NTMA apprenticeship training into Thornton Academy's curriculum. His leadership and donation helped create a successful program.

Thornton Academy Associate Head Allan Young said "For the 2014-15 school year – the second year of the program, Thornton Academy's NTMA-U program has enrolled twenty students. The program covers everything from geometry and trigonometry to using CAD programs, safety practices, blueprint reading, CNC operations, advanced applied shop math, SPC, GD&T, and practice with dozens of precision machine tool devices. This apprenticeship program offers a skillsbased certification curriculum to complete the NIMS written exam while gaining valuable industry-specific knowledge and earning 21 college credits." Instructor Tom Narciso

teaches two levels of students – Semester 1 and Semester 2 – in addition to teaching precision machining at Southern Maine Community College (SMCC). Junior students enrolled in the second year of the program will take part in a learning lab on Wednesday evenings at Southern Maine Community College. Sophomore students participating in the first year of the program will experience their laboratory at Arundel Tool and Machine.

Paul Jurgiewich, a junior at Thornton Academy, said "I learned about a summer job machining at Pratt & Whitney by taking the NTMA-U precision machining class in school. Nick (Rizeakos), Tom (Teague), and I were chosen out of the 10 other students to take part as a summer intern at Pratt & Whitney. I was put on the micron grinder (3 axis machine) which I would load up, run the program, then measure the part afterwards on a CMM (coordinate measuring machine). I also ran a few other machines like the Huffman (5 axis), the wash, the micron (3 axis) the grit blaster, and the manual mill. The most challenging part of running the

Clockwise from the right:

Thomas Teague, a Thornton Academy junior who qualified for the opportunity to work at Pratt & Whitney through his performance in his NTMA-U class, ran the manual mill and the laser graver this summer. "The people at Pratt & Whitney are great. They gave us the opportunity to work during the school year part time. And I'm having a great time learning and working. I want to get more into it and learn other machines and more about the plant."

Paul Jurgiewich is a Thornton Academy junior, working at Pratt & Whitney in North Berwick, Maine while he finishes

school." The people I work with do a great job teaching, but I can't just watch

someone do something then know exactly what to do. I have to get on the machine myself and teach myself how to run it."

Nick Rizeakos, a Thornton Academy junior, working at Pratt & Whitney in North Berwick, Maine.



Photos Courtesy of Pratt & Whitney.





machines was learning them. Pratt & Whitney is an amazing business and getting my foot in the door at such a young age just blows people away. When I told people that I'm 16 years old and still in high school their mouths would drop. Nobody could believe it. It's amazing."

Steven Howe of Pratt & Whitney said "Three Thornton Academy students -Nicholas Rizeakos, Paul Jurgiewich and Tom Teague - displayed outstanding performance throughout the summer. Their supervisors were amazed at their energetic attitude and desire to learn as much as they can. We started them on bench mechanic work, intending to give them several weeks of exposure to our parts and processes. However, within a couple of days they were operating machines! They all had perfect attendance. Paul and Tom continue working part time through the school year and we have agreed, with the stipulation that their grades do not suffer. School is their primary job now."

To learn more about this program contact Allan Young, Associate Headmaster at Thornton Academy (207.282.3361, ext. 4435) or see the news page of the school's website: www.thorntonacademy.org/page.cfm?p=560.



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As part of the NTMA Shipping Program, PartnerShip helps NTMA members save on their FedEx® small package shipments (under 150 pounds), whether express or ground, domestic or international, business or home deliveries. The PartnerShip setup process makes it simple and easy to get up and running quickly, and their shipping experts provide help every step of the way to ensure members maximize their small package savings.

Here are a few examples of the discounted domestic U.S. express shipping services and benefits that are available to NTMA members through the NTMA Shipping Program:

- FedEx SameDay® Available 365 days a year for your most urgent shipments.
- FedEx SameDay® City Get urgent crosscity delivery within several major U.S. metro areas.
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 - FedEx Priority Overnight® Next-business-

day delivery by 10:30 a.m. to most areas (by noon, 4:30 or 5 p.m. to some rural areas).

- FedEx Standard Overnight® When you need it there next business day in the afternoon.
- FedEx 2Day® A.M. Second-business-day delivery by 10:30 a.m. to most areas (by noon to rural areas).
- FedEx 2Day® Second-business-day delivery by 4:30 p.m. to most areas (by 7 p.m. to residences).
- FedEx Express Saver® Delivery is in 3 business days by 4:30 p.m. to most areas (by 7 p.m. to residences).
- Free FedEx shipping supplies can be ordered and delivered to your business on FedEx. com.

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ANOTHER MFG DAY SUCCESS STORY — FROM BOSTON

BTMA MEMBERS OPEN THEIR DOORS FOR 3RD ANNUAL MANUFACTURING DAY



BTMA members are very serious about getting the word out about the importance of manufacturing. As part of their year-round efforts to promote the industry, seven companies opened their doors to students, educators, and local and state officials on October 3rd, National Manufacturing Day. AccuRounds, Arundel Machine Tool, Boston Centerless, the Custom Group Center for Manufacturing Technology, FH Peterson Machine Corp., North Easton Machine Co., and United Tool & Machine Corp. all hosted tours and activities for over 500

people, combined. These events provided information and insights into the importance of the industry and the varied careers available.

Three members located south of Boston worked together to rotate students and teachers from four vocational high schools through



Paul Diamond of North Easton Machine showing students the different manufacturing floor processes.

their facilities. For the second year in a row, AccuRounds, FH Peterson Machine Corp. and North Easton Machine Co. provided the schools with great opportunities to compare the different processes and products of these companies. The par-

ticipating high schools included:

- Bristol-Plymouth Regional
- South Shore Regional
- Southeastern Regional
- Old Colony Regional

Local Workforce Investment Board & Career Works staff, STEM faculty from local schools, city officials and Massachusetts State Helder Goncalves speaks with Brockton area middle school students touring AccuRounds.



Representatives also took part in the activities.

North of Boston, members Boston Centerless and the Center for Manufacturing Technology in Woburn, along with United Tool & Machine Corp. in Wilmington hosted students from four local high schools – Malden, Somerville, Woburn and Northeast Metro Technical.



Somerville High School students talk with Jason Cialone, a Manufacturing Manager at Boston Centerless.

Representatives from a local career center and a YouthBuild program participated as well.

Arundel Machine Tool, Arundel ME, had over 100 visitors to its October 3rd Open House. Three local high schools participated in tours

and learned about the important industries served by Arundel and manufacturers like it. The schools included the Regional Technical Centers from Sanford and Biddeford ME and Thornton Academy in Saco ME.

BTMA is grateful to each of these companies for their leadership in organizing and engaging their communities in Manufacturing Day events. The participation of over 500 visitors at members' facilities is a testament to outstanding leadership and dedication.





Students from Thornton Academy interact with Arundel Machine employee, Justin Patry.

RP ABRASIVES OBTAINS ISO CERTIFICATION

NTMA member RP Abrasives (RPA), a world leader in surface finishing of manufactured parts and headquartered in Rochester, NH, is proud to announce it has been ISO 9001:2008 Certified. This certification recognizes RPA's adoption of a Quality Management System (QMS) to achieve quality policy and objectives.

The ISO 9001:2008 certification focuses on customer satisfaction and is the universal standard that defines quality within an organization. It consists of criteria that

is necessary to improve company efficiency, minimize risk, and maximize opportunities. The QMS was assessed by Perry Johnson Registrars (PJR), a full-service certification body accredited by ANAB (ANSI-ASQ National Accreditation Board).

Founded in 1996, RPA provides mechanical surface finishing solutions for a variety of metals including aluminum, bronze, brass, copper, stainless steel, steels and zinc, as well as plastic surfaces from acrylic to Ultem.

As a predominant surface finishing shop, this certification ensures RPA is a credible supplier for its customers and committed to the highest operational standards.

America's Finishing Experts

For additional information about RP Abrasives please contact Joe Shean at (603) 335-2132 or email (Joe@RPAbrasives.com).

(www.rpabrasives.com)



2014 FALL CONFERENCE NTMA "TOOLS" OVERVIEW



2014 Fall Conference in New Orleans was a resounding success. Based on Chairman Ted Toth's "Retooling in 2014" theme, the conference focused on the NTMA "tools" offered to members. A record number of first timers, seasoned fall conference attendees, spouses, sponsors and staff all enjoyed rich general sessions, lively informative roundtables, Technology Day and then managed to fit in an evening reception and the closing gala. In between, of course, there was time here and there to sneak away to enjoy a little of New Orleans' rich history and unique culture. It was noted by one person "I've been to a lot of NTMA conference and this ranks in the top 3 ever!" NTMA President

Dave Tilstone noted "It was a very successful event by any measure."

NTMA









FIRST TIMERS

A record 60 first timers attended this year's Fall Conference. They welcomed on Wednesday with a breakfast, with introductions to NTMA Executive Team, staff and key partners. One comment in particular stands out and should be a testimony to anyone considering the value of attending a future national conference. "Thank you so much for having breakfast with me at the first timers meeting....our company owners and I cannot say enough good things we have come across since joining this group. It appears we may have another new customer just because of this conference."



Nathan Coin (Aerotek) and Dave Tilstone welcomed first timers to the 2014 conference at breakfast sponsored by Aerotek



KENNAMETAL EVENT

The lively town of New Orleans was backdrop to a fantastic welcoming reception at the World War Il Museum, hosted by Kennametal. Guests wore their 1940s attire in a venue that included vintage aircraft along with armored and ground vehicles. It was a perfect setting for socializing and getting acquainted with one another.



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NTMA GENERAL SESSION — AWARDS AND RECOGNITION

Fall Conference formally kicks off with a General Session. This is the time for awards and recognition. See Chairman's Corner at the front if this issue of The Record for Ted's list of General Session awards and recognition. Among those honored and recognized were the top three NTMA-U graduates in the inaugural graduation class of 2014. Kevin Ausmus (Southern Machine Works), Shane Carlton (Sattler Companies) and Phillip Eisenloeffel (Valco Valley Tool & Die) were recognized as achieving high (nearly perfect) scores - in fact each was within 200 points of the 6000 possible points. More importantly, NTMA-U graduation means greater opportunities in their respective careers. One graduate noted that he "found the course challenging." Another noted that while the courses were sometimes tough, the benefits were well worth it" and that he liked that he could do the coursework on his own time. NTMA Vice -President Ken McCreight (and "dean" of NTMA-U) noted that "this (was) a great day for NTMA-U" and looks forward to continued accomplishments of this year's graduates, these awardees and the many to come.

This year's Honor Award went to Roy Vestraete, Danly Machine Company (now Anchor Danly) based in Ithaca, Michigan. It was noted that Roy is a "true advocate for the tool and die industry."





Ted Toth and NTMA-U graduate Kevin Ausmus



Ted Toth and NTMA-U graduate Shane Carlton



Ted Toth with Honor Award recipient Roy Vestraete (Anchor Danly)



Ted Toth with several anniversary award recipients: Pat Walsh (Ehrhardt Tool & Die, 75 years); Tim Barickman (NuTec Tooling Systems, 30 years); Donald Lloyd (The Lloyd Company, 35 years) and Roy Sweatman (Southern Mfg. Technologies, 30 years)



Ted Toth with Nils Kjell and Doug Hill, who are representing San Francisco Bay Area Chapter, one of four new Star Chapters



Ted Toth and NTMA-U graduate Philip Eisenloeffel



Mike Hirsh (Hirsh Precision Products of Ogden, UT) received the 6S Excellence Award from Ted Toth



Dave Tilstone (far left) and Ted Toth stand with the delegation from NTMA's newest and fastest growing chapter (and now Star Chapter), New Mexico Chapter



Ted Toth presents the Akron Star Chapter award to Courtney Wagner and Dave Sattler, representing the Akron Chapter



The Rocky Mountain Chapter has joined the class of Star Chapters, represented by Scott White

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TECHNOLOGY DAY

After a WOW! breakfast sponsored by Mazak, Technology Day began with seminars on Machine Interface Training, Considerations for Five Axis Machining, Laser Tech Machine, Options for Shop Consumables, Quote Management and What's Next in Technology. These meaty topics alone provided enough materials to put attendees over the top in terms of return on their investment of time and funds to travel to/attend the Fall Conference.

One NTMA member noted, "Technology Day was a huge bonus I wish I'd brought some of my shop people for the day." Based upon member feedback, the full day of technology presentations was not only a first for a Fall Conference but ranked as a "must do again" by those who attended.

Social media became one of the hot topics at the entire Fall Conference. Are you on Facebook (your company)? Do you Tweet on Twitter? How many contacts are actively engaged in your LinkedIn network? Gretchen Homeyer, Maddie Wardle and Caitlin Andrews presented practical ways to leverage Facebook, LinkedIn and Twitter to generate a buzz around your company and brand.





Jeff Estes (Okuma)



Darryl Smith (Doosan)



Dr. Gregory Hyatt (DMG MORI)



Mike Kerscher (Mazak)



Randy Harland (DMG MORI)



Jack Burley (BIG Kaiser)



Christine Hansen (Epicor)



Kevin Ahaus & Reid Leland - Tech Day Moderators



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INFORMATIONAL SESSIONS AND ROUNDTABLES

A new, very-well received addition to this year's conference was the Lean Manufacturing NTMA Member Panel. Members highlighted various aspects of lean they have implemented and openly discussed the successes they realized in their businesses as a result of those changes. Another panel, Wednesday's Additive Manufacturing, included additive experts, who updated members on the truths and myths surrounding this disruptive technology. Of keen interest since the recession has been the sales and marketing workshop that outlined key steps of marketing your business to customers.

As always roundtables were extremely well attended and highly regarded. For this conference there were industry specific roundtables for automotive, fluid power, aerospace and medical. Plans are already in the works to expand the transportation roundtable to capture auto, trucks and off-road vehicles.

Franklin Partnership (One Voice) and Bracewell & Giuliani wrapped the closing General Assembly with an overview of the upcoming elections as well as the status of Section 179, accelerated depression and the R&D Tax Credit.





Top Left: Mike Retzer (Industry Advocacy Team

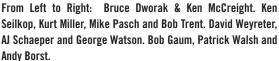
Above: Zac Overton (Emerging Leaders Team

Leader)

Left: Kevin Ahaus (Workforce Development

Team Leader)





OPTIONAL OFFSITE EVENTS

Fall Conference included three offsites – just for fun: walking ghost tour, mask-making and a riverboat cruise up the Mississippi.









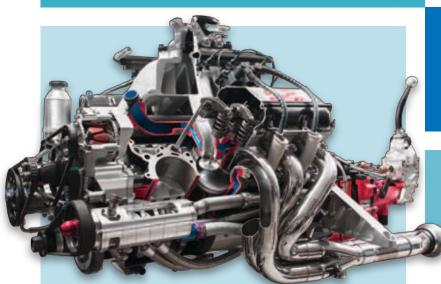
MARDI GRAS GALA

Afteranaction-packedweek of technology and business tracks, the conference was concluded with a masquerade-themed gala way to end the New Orleans conference.



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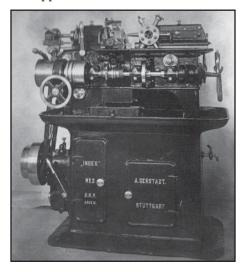
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INDEX: A HISTORY OF INNOVATION

INDEX-Werke was founded by Mr. Hermann Hahn in Esslingen, in the Stuttgart region of Germany in 1914 and quickly developed in the 1920s to one of the leading machine tool exporting companies worldwide, based on the high quality and productivity of its automatic single spindle turning machines. These machines produced high quality turning parts for many different types of industries from the growing German automobile industry to optical components and parts used in fixtures and appliances.



Vintage INDEX screw machine

The first machines were imported to the United States in 1924. After World War II, INDEX became, next to Brown & Sharpe, the world's largest producer of single spindle automatics which can be found in many companies worldwide. With the advent of CNC technology, INDEX started a successful cooperation with a renowned US lathe builder, Lodge & Shipley (Cincinnati, OH), which continued for many years.

Within four decades of the company's founding, more than 20,000 turning machines had been sold, forming the basis for the excellent reputation of INDEX around the world. In 1983, INDEX Corporation was started in Shelton, Connecticut a wholly owned subsidiary

INDEX-Werke to better support the training needs and service requirements of their customers. In 1975, INDEX began with the production of Multispindle turning machines. A few years later, the company entered the market for CNC technology, and INDEX soon assumed a pioneering role here. After the death of Eugen Hahn, the son of the company's founder, 85% of the company shares were put into a foundation. The company continues to be held by that private foundation.

In 1992, INDEX presented a new generation of turn-mill centers based on

a modular component system. In 1997, TRAUB Drehmaschinen GmbH & Co. KG from neighboring Reichenbach/ Fils was taken over and integrated into the INDEX Group as an independent subsidiary.

Since 2002. INDEX has offered multi-functional production centers in which different process technologies can be integrated in one machine. The complete

machining means that not only the quality and precision are higher but also that primarily the production costs are reduced as a result of the shorter throughput times. This benefit is appreciated by INDEX customers worldwide as it strengthens their competitiveness.

The main customers of INDEX turning machines are found in the au-



INDEX-Werke factory, Germany

tomotive and automotive supplier industries, mechanical engineering, electrical engineering and electronics sectors as well as manufacturers of fluid technology and of controls and instruments as well as medical technology and in the aerospace industry.

Today, INDEX employs approximately 2250 people worldwide. In addition to the facilities in Germany and the U.S., INDEX has sales and service organizations in France and Sweden and a plant in Brazil since 1975. INDEX enjoys a reputation of one of the most innovative machine tool builders world-



MS22C-8multispindle CNC

wide, producing high quality, mostly computer-controlled machine tools which can produce highly complex parts for low and high volume requirements.



CONGRESSMAN WALBERG AND STATE REPRESENTATIVE SHEPPARD TOUR DUNDEE MFG



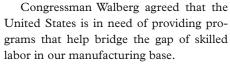
Congressman Tim Walberg and State Representative Candidate Jason Sheppard from

Michigan toured Dundee Manufacturing Company on October 28th .

The main topic discussed with Congressman Walberg is how Dundee Manufacturing is filling the deficiencies in their skilled labor pool. The company expressed that they are going to have to grow our skilled trades organically, by utilizing the NTMA Trade School based in Bedford Michigan and the use of the NTMA-U for individualized programs to help employees that have particular needs. He was told that the program provides the following benefits:

1. Good employees can be sponsored by employer to obtain Journeymen Certification through NTMA and DOL.

- 2. Schooling is cost effective.
- 3. Provides for a progressive scale of wages for the apprentice to increase their standard of living while attending school.
- 4. It provides a platform for on the job training.



Learn more about Dundee Manufacturing at www.dundeemfg.com or contact Dundee President, Pete Davis (pdavis@dundeemfg.com).

NTMA



Dale Davis, Congressmen Tim Walberg, State Representative Jason Sheppard, Peter Davis and Sarah Davis outside Dundee Mfg.



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Manufacturers now have an opportunity to speak directly with the nation's leading lawmakers at the 7th Annual One Voice Legislative Conference. With tax reform looming on the horizon, Washington needs to hear from manufacturers now more than ever. Join together to speak with One Voice April 21-22, 2015.

Agenda

Monday, April 20, 2015

4:00p.m. – 5:30p.m. – Early Conference Registration

5:30p.m. – 6:30p.m. – Optional Early Arrivals Reception

Tuesday, April 21, 2015

8:00a.m. – 11:30a.m. – Conference Registration

11:30a.m. – 1:00p.m. – Conference Opening

Remarks, Briefing, and Lunch

2:00p.m. - 4:30p.m. - Capitol Hill Visits

5:30p.m. – 6:30p.m. – Networking Reception

Wednesday, April 22, 2015

8:00a.m. – 9:30a.m. – Breakfast, Issues Presentation

10:00a.m. - 4:00p.m. - Capitol Hill Visits

Additional information about registration is coming soon. For more information, visit www.metalworkingadvocate.org or contact onevoice@metalworkingadvocate.org or call 202-393-8250.



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FIVE ACTION STEPS TO INCREASE THE SUCCESS OF HIRING MILITARY CANDIDATES

BY BRIGADIER GENERAL (RET) MARIANNE WATSON
FORMER DIRECTOR, MANPOWER AND PERSONNEL, NATIONAL GUARD BUREAU
VICE CHAIR, AMERICAN JOBS FOR AMERICA'S HEROES



Too often military hiring efforts are viewed by companies only through the lens of patriotism or a sense of obligation. It is time to broaden this perception. Civilian hiring of National Guard members, veterans and Reservists should be seen as an opportunity -- a big opportunity -- for employers to hire men and women with proven track records who have already demonstrated the qualities that companies value most in their employees.

The Guard invests literally hundreds of thousands of dollars in training every service member in 107 occupational specialties. These Guard members, -- many of whom are young men and women, -- many of whom do not have college degrees, -- are managing and maintaining billions of dollars' worth of the most sophisticated equipment and machines all over the world, often in very demanding climates and geographic locations.

In the Guard, our service members are continuously setting up, managing and then taking down small cities to support our presence, not only in foreign countries, but here at home during disaster relief efforts. They manage everything needed -- food service, medical facilities, global communications, aircraft maintenance, truck and tank maintenance, supply chain systems, safety protocols and training, personnel management, emergency response teams – the list goes on and on.

However, communicating the qualities of soldiers and veterans successfully to company recruiters is often a serious challenge. Most recruiters don't know how to interpret all the military jargon on resumes. For example, many don't appreciate how someone who supervised maintenance on multi-million computer systems in tanks is a good candidate —with some gap training — to supervise maintenance on computer systems in manufacturing companies.

Here are five best practices we at the American Jobs for America's Heroes campaign see the most successful military friendly companies implementing.

First, make sure your recruiting managers includes employees from military backgrounds who can help interpret military training and experience jargon with real insight. Don't just rely on the computerized occupational code trans-



Brigadier General (ret) Marianne Watson

lation systems that typically are limited and don't convey the real qualities of the candidate's experience.

Second, take a hard look at college degree requirements you have for your jobs and build in some flexibility. Starbucks, for example, amended its recruiting policies for 29 job categories by adding that "military equivalencies" would be accepted in lieu of college degrees.

Third, help your key managers understand more about military training and experience. Too often, recruiters present excellent candidates to business managers who don't know how to evaluate the candidate's true worth and reject them.

Fourth, encourage your recruiters and managers to develop ongoing relationships with the Guard and military bases in your locations. Help the military employment counselors learn about your company and the candidates you're looking for so they don't have to guess. Let these counselors know that your company has a serious interest in good candidates.

Fifth, assess the overall cycle time of your hires. Some companies that take six months to close the deal with finalist candidates find that all their military candidates drop out because they're being hired by other companies that take only two or three months to complete the process.

All of us in the military and in business, really all of us in America, have a vital stake in the success of the all-volunteer military. Our sons and daughters, nieces and nephews and grandchildren too, are free to decide on their own whether military service is right for them.

But to ensure that our young people will want to volunteer for the military, we need to ensure that when they complete their service or choose to be a member of the National Guard, they will have good options for civilian employment equal to their talents, skills and motivation to contribute to the world around them.

Be sure to register for the American Jobs for America's Heroes Campaign at www.CenterForAmerica.org. Your job postings will be provided directly to hundreds of military employment counselors working with soldiers one-on-one to match them with jobs. All services are free to employers and candidates.

NTMA



As noted in the November issue of The Record, NTMA's One Voice was recognized by the Center for America at their Delivering on the Promise Honor Roll reception on October 23, 2014. Shown here: Brigadier General Ivan E. Denton presented the award to Paul Nathanson, Bracewell & Guiliani.



ENERGY OUTLOOK 2015

Last winter's extremely cold temperatures caused high energy costs for unprepared customers, some of whom are still feeling repercussions today. As the 2014-2015 winter season approaches, NTMA members are asking if energy prices will continue to rise, and how they should prepare and budget.

The volatile energy markets are dependent on many factors, including legislation, weather events, consumer demand, and environmental concerns. It appears that electricity and natural gas prices reached historic lows in April 2012. Prices are likely to steadily increase through 2017. Several influencers come into play when forecasting 2015 energy price trends. Extreme weather, Environmental Protection Agency (EPA) regulations, and domestic natural gas resources are three of many important considerations that impact today's energy price trends.

WEATHER

Weather forecasters are predicting another cold winter in the U.S. Below-normal temperatures are expected to encompass two-thirds of the U.S., particularly the East Coast and Gulf Coast. Above-average precipitation and heavy snowfall are expected in these regions. Parts of the Midwest and New England were blanketed in snow as early as the first week of November 2014. The jet stream over the northern region of the U.S. is expected to be erratic,

which could force cold air from the polar and Arctic regions into the U.S., particularly into the East Coast and Deep South.

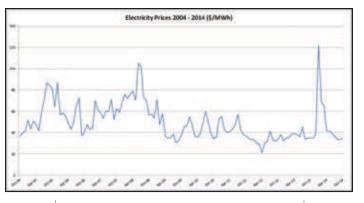
The West Coast, on the other hand, will experience above-normal temperatures, which means severe drought conditions could worsen. In California, where 60% of the state is suffering the worst category of drought, mountainous snowfall is crucial for recovery. Snowfall amounts, which depend on the strength of winter storms, are difficult to forecast more than seven days in advance. If extreme cold weather forecasts are accurate, electricity consumers should prepare for the risk of more electricity price volatility.

NATURAL GAS

An abundance of natural gas resources in the U.S., coupled with enhanced drilling techniques, has led to historic increases in natural gas production and delivery of natural gas. This has reduced dependence on foreign natural gas imports.

Production. Natural gas production in the U.S. continues to break records. In April 2014, domestic natural gas production reached a record-setting 73.5 billion cubic feet (Bcf) per day, the highest for any month on record, according to the U.S. Energy Information Administration (EIA). Horizontal drilling and hydraulic fracturing, also known as "fracking," are innovative techniques for capturing natural gas in shale formations, including the Marcellus Shale, the largest source of natural gas in the U.S.

Covering 104,000 square miles, the Marcellus Shale expands across Pennsylvania, West Virginia, and parts of Ohio and New York. Natural gas production in the Marcellus Shale region exceeded 15 Bcf per day through July 2014, the first time that level was ever recorded by the EIA. Marcellus Shale natural gas production is expected to increase year-over-year.



Imports/Exports.

U.S. natural gas imports in 2013 declined for the sixth consecutive year. Total natural gas imports for 2013 were 2,883,355 million cubic feet, which is the lowest level since 1995, according to the EIA. The U.S. is expected to become a major exporter of liquefied natural gas (LNG) in the near future. Jordan Cove in Oregon, the nation's seventh LNG export terminal, was recently approved. LNG exports are expected to begin in late 2015.

Supply/Demand. Natural gas storage levels have been a primary driver of price trends for both gas and electricity in 2014. Natural gas storage levels in the U.S. were historically high in October 2012, but extreme winter weather in late 2013 and early 2014 substantially increased natural gas demand for heating, which depleted storage inventories. As the power sector increased demand for natural gas to generate electricity, the amount of natural gas in

storage steadily plummeted to 822 Bcf, which was an 11-year low, by the end of the storage withdrawal season in April 2014. Recordbreaking storage injections were needed to replenish historically low natural gas storage levels in time for this winter's heating demand, which has already started in November 2014.

Summer 2014 produced the largest natural gas storage injections ever recorded by the EIA. Weekly storage injections, which typically occur in May through October each year, were historically high in 2014. Injections were greater than 100 Bcf for eight consecutive weeks during the 2014 summer months. Below-normal temperatures across the U.S. during summer 2014 contributed to large storage injections, as the power sector's demand for natural gas-fired generation weakened. As of November 2014, replenished natural gas inventories were 6.8% below the five-year average. Industry experts

are confident that storage levels are sufficient to meet winter heating demand.

As another cold winter season approaches, gas demand for heating and power generation is projected to increase steadily. Consumer demand for gas and electricity are typically synchronized. Electricity price trends are closely linked to the natural gas market. Winter weather across the U.S. in 2013-2014 produced the most volatile natural gas

daily price swings in several years, and electricity prices climbed, as well.

ELECTRICITY GENERATION

New federal regulations on power plant emissions have prompted electric utilities and generators to schedule two dozen coal-burning generators in the U.S. for decommissioning, beginning in 2015. On April 29, 2014, the U.S. Supreme Court upheld the U.S. Environmental Protection Agency's Cross-State Air Pollution Rule (CSAPR), which is expected to cost power plant operators \$800 million per year, starting in 2015. The EIA forecasts 16% of coal-fired capacity available at the end of 2012 will be retired by 2020. The increasing use of natural gas for power generation will put upward pressure on prices for both natural gas and electricity.

In PJM, the regional transmission organization responsible for reliable delivery of electricity in 13 Midwest and Mid-Atlantic states, the current fuel mix used to generate electricity is 40% coal, 30% natural gas, 19% nuclear, and 11% renewable and other. At the current rate, natural gas will surpass coal as PJM's primary source for generation by May 2015. Natural gas is attractively priced compared to coal, and natural gas-fired generators are easier to install and operate. The U.S. Nuclear Regulatory Commission has granted license renewals providing a 20-year extension to 74 of 100 total operating reactors in the U.S., according to the EIA.

Thirty states have renewable energy mandates in place for wind and solar generation sources. Implementation of renewable generation in the U.S. has been slow. Solar power provided 42% of installed generating capacity in the U.S. during the first half of 2014, while wind accounted for 14 percent. Biomass provided less than 3%, and geothermal and hydropower each comprised less than 1% of installed generation capacity in the U.S. during this timeframe. The cost of electricity from a green system remains high relative to the cost of electricity created by gas or coal generators.

Fossil fuel consumption and emissions increase substantially during extreme temperatures. Cold weather increases the cost of power generation from gas, coal, and nuclear power plants. When the polar vortex triggered very cold temperatures in the U.S. in early 2014, en-

ergy use and carbon dioxide emissions notably increased.

ELECTRICITY DELIVERY

Power outages cost the U.S. economy \$18 billion to \$33 billion per year. The average U.S. power plant is 30 years old, while 70% of the grid's transmission lines and transformers are at least 25 years old. Modernizing the U.S. grid system will cost \$673 billion by 2020, according to the American Society of Civil Engineers. CRUDE OIL

During the last few years, oil production in the U.S. has increased to record-breaking levels. U.S. crude oil production reached 8 million barrels per day (bbl/d) in February 2014. In April 2014, Texas crude oil production reached 3 million bbl/d for the first time since the late 1970s, more than doubling production in the past three years. Crude oil production from the Bakken and Three Forks formations in North Dakota surpassed 1 million bbl/d in April and May 2014, according to the EIA.

The U.S. exported 268,000 barrels of crude oil per day in April 2014, which is the highest level of exports in 15 years. The EIA's Short-Term Energy Outlook forecasts U.S. total crude oil production will increase to 9.3 million bbl/d in 2015, which would represent the highest annual average level of oil production since 1072

STABILIZE ENERGY COSTS

Customers who used variable or index prices for gas or electricity supply in January 2014 experienced problematic cost increases. Some electricity suppliers quadrupled the variable price billed to customers from December 2013 through March 2014.

Weather-related events in January and February 2014 are examples of how unforeseen and uncontrollable circumstances can greatly affect gas and electricity prices that impact RTOs, suppliers, and customers. Energy consumers are encouraged to mitigate risk exposure to volatile energy prices by using a fixed-price supply contract as soon as possible, to cover supply through at least March 2015. Customers unwilling to commit to a one-to-three year supply contract should at least consider locking in a short-term, four-to-five month supply solution.

Some industry experts now consider extreme weather, and resulting gas and electricity price volatility, as the new norm. Achieving budget certainty now for this winter's gas and electricity costs is a prudent business decision. For more information, contact NTMA-endorsed consulting firm APPI Energy at 800-520-6685 or info@appienergy.com.



SANDVIK Coromant

TRANSMISSION MANUFACTURING WITH STEEL TURNING GRADES GC4325 AND GC4315

With new technological developments, emerging on the automotive horizon, manufacturers are faced with extremely high demands in terms of quality, security and productivity. The new Sandvik Coromant grades GC4315 and GC4325 with Inveio $^{\text{TM}}$ are designed to support the automotive industry with outstanding reliability and process security.

LARGE BATCH PRODUCTION WITH LOW UNIT COST

Transmission manufacturing is a large

volume production with a low cost per part. Therefore, requirements such as high process security, short cycle times and consistent quality are critical for achieving faster lead times and lower production costs. Soft stage turning is performed before the case hardening process. Offering high wear resistance and excellent tool life, this is where the steel turning grades GC4315 and GC4325 are to show a marked step up in performance.

PREDICTABLE PERFORMANCE FOR SECURE PRODUCTION

First choice grade for soft stage turning in stable conditions, GC4315, is designed for high-speed steel turning with a long and predictable tool life. Grade GC4325 is a tougher steel turning grade that manages interrupted cuts and uneven depths of cut at high speeds. Both grades enable high cutting data without sacrificing component quality. If the spindle speed limit prevents the full use of their capac-



ity, maximum productivity can be achieved by applying higher feed rates. These two grades are excellent choices for outer-diameter turning, copying and profiling and guarantee predictable performance for secure transmission manufacturing.

Sandvik Coromant is a global leading supplier of cutting tools, tooling solutions and know-how to the metalworking industry. With extensive investments in research and develop-

ment we create unique innovations and set new productivity standards together with our customers. These include the world's major automotive, aerospace and energy industries. Sandvik Coromant has 8000 employees and is represented in 130 countries. We are part of the business area Sandvik Machining Solutions within the global industrial group Sandvik.



MASSECON NAMES ACCUROUNDS A COMMUNITY HERO AT ELEVENTH ANNUAL TEAM IMPACT AWARDS



NTMA member AccuRounds (Avon, MA) has been named a Community Hero for the Team Massachusetts Economic Impact Awards, presented annually by MassEcon. The awards celebrate companies that have made outstanding contributions to the Massachusetts economy. The winners from each region were recognized at an Awards Luncheon on November 25th at Boston's Renaissance Waterfront Hotel, with over 400 business and community leaders in attendance.

"The Massachusetts Economic Impact Award winners have made great contributions to our state's economy and have spurred regional development throughout the Commonwealth," said Secretary of Housing and Economic Development Greg Bialecki. "I commend these companies for their investments and look forward to our ongoing partnership as they continue to expand and create jobs here in Massachusetts."

AccuRounds is one of three companies selected as a Community Hero, an award conferred for the first time this year by MassEcon. AccuRounds has distinguished

itself through its leadership in promoting advanced manufacturing, workforce training, STEM education, vocational education and ambassadorship - among many other contributions. PlumChoice in Lowell and uniQure in Lexington also received this distinction.

"We are extremely gratified to be one of the recipients of the inaugural Community Hero award. This honor is a true team award recognizing every team member at AccuRounds who contributes to the community in some way," said Michael Tamasi, President and CEO at AccuRounds. "From participating on advisory boards to engaging students at STEM events to speaking with visitors during plant tours, our team at AccuRounds is passionate about their work, and we are thankful to MassEcon for this recognition."

Tamasi is actively involved in promoting manufacturing statewide serving on the Massachusetts STEM Advisory Council and is a member of the Executive Committee for the MA Advanced Manufacturing Collaborative. AccuRounds works with several area vocational schools to help provide prospective

graduates with viable career opportunities in manufacturing.

AccuRounds, founded in 1976, is a contract manufacturer that machines and assembles precision turned components for a variety of industries including aerospace, defense, medical and oil and gas. (www.accurounds.com).

MassEcon, founded in 1993, is a non-profit, non-partisan entity that serves as the state's private sector partner in promoting Massachusetts as the premier choice for business growth. Its services include the state's only Site Selection Service, which helps expanding and relocating companies find a home in the Commonwealth; the Research & Information Service, which provides companies with the information they need to evaluate the Commonwealth as a location to grow; and the Massachusetts Ambassadors, a network of civic and corporate leaders who help market Massachusetts as a place to do business. (www.massecon.com)





TCI PRECISION METALS NAMES BEN BELZER PRESIDENT AND COO

TCI Precision Metals recently named Ben Belzer as President and Chief Operating Officer for the company effective immediately.



Ben, 33, represents the third generation in the closely-held company and has been with TCI full-time since 2004 and will take over day-to-day operations. John Belzer is stepping aside and will remain active as the company's CEO.

This is an extremely proud moment for me personally and important milestone for TCI," said John Belzer. "Ben brings renewed energy, creativity, applied technologies and a focus on transformative culture to the company while providing exceptional value to the company over the past 10 years. Moving forward, under his leadership the company will continue to evolve as a customer-centric organization."

Ben Belzer holds a Bachelor of Arts Degree in Economics and Information Sciences from the University of Illinois at Urbana-Champaign. Among his many accomplishments, shortly after joining TCI in 2004, Ben scoped, sourced and directed the implementation of an integrated ERP system; in 2008 he was instrumental in acquiring both

ISO 9001 and AS9100 quality certifications for the company. Under Ben's leadership, TCI continues on a path of developing a high-performance workplace focusing on operational excellence and total customer satisfaction.

Founded in 1956, TCI Precision Metals is a family-owned precision manufacturer producing precision machine-ready blanks from aluminum, stainless steel and other alloys. Sawing, grinding, milling and finishing operations with the added benefit of being a plate and sheet distribute for Alcoa make TCI Precision Metals a one-stop source for quality aluminum, stainless and other alloy blanks. TCI serves the needs of the medical, oil and gas, aerospace, industrial equipment, defense, food packaging, semiconductor and many other industries.

For more information, call (800) 234-5613 or visit www.tciprecision.com



ST. LOUIS HOLDS CFO ROUNDTABLE

St. Louis was the site of the second CFO Roundtable in November. CBIZ, a new NTMA National Associate Member, was the event's lead sponsor and played a large part in developing the program content. Other sponsors included St. Louis Chapter Associate members Enterprise Bank and Trust (also host location) and BMO Harris Bank.

Individuals from New York, Wisconsin, Alabama and Kansas City joined St. Louis Chapter members for engaging sessions centered around the roles and responsibilities of CFOs in the manufacturing

industry. Topics included Tax Landscape: Tax Credits & Incentives; Healthcare Reform; Maximizing Access to Working Capital and Cash Flow; and Retirement Plan Management. The roundtable discussion at the end of the day focused on benchmarking company performance and acquiring skilled, quality employees. This session was found to be especially beneficial to the members.

The CFO Roundtable's postevent surveys were very positive. For example, one attendee responded that the whole day was extremely valuable, noting



Steve Albart (Enterprise Bank and Trust), Rachel Hacker (BMO Harris Bank) and Ed Hinders (CBIZ) - sponsors of the CFO Roundtable

that "It was an incredible experience to have a day with so many knowledgeable people that otherwise would take days, weeks or months to gather the same information."



NIMS' NEW WEBSITE PROVIDES NEW TOOL FOR YOUR TALENT SEARCH



The National Institute for Metalworking Skills (NIMS) is excited to launch a new website catered to employers seeking to fill open jobs and build a pipeline of globally competitive talent.

The site (www.nimsready.org) provides concise information, tools and how-to guides to help employers learn

about and implement industry-recognized credentials at their companies. A link on the site takes you to the Jobs/ Opportunities page, where employers can post job openings.

NTMA

NTMA REPRESENTED MANUFACTURERS AT OCTOBER ROUNDTABLE

On October 29, the National Network of Business and Industry Associations convened a Business Roundtable with employer representatives, including Dave Tilstone of NTMA. As a Board member of NIMS, Tilstone provided industry input to ensure that the Network efforts provide solutions needed to address the real challenges manufacturing companies are facing as they seek candidates.

The National Network of Business and Industry Associations, co-led by the ACT

Foundation and the Business Roundtable, has been actively collaborating on initiatives to create a new model for job preparation that helps both students and workers build the knowledge and skills employers need. The National Institute for Metalworking Skills is a leader on the National Network, with Jim Wall chairing the Work & Learn Committee.



CALENDAR OF EVENTS

TEAM LEADERS MEETING

January 18, 2015 Miami, FL

MANUFACTURING FOR GROWTH (MFG) MTG.

March 4-7, 2015 Orlando, FL

ONE VOICE LEGISLATIVE CONFERENCE

April 20-22, 2015 Washington, D.C.

NRL COMPETITION

May 15-16, 2015 Cleveland, OH

EMERGING LEADERS CONFERENCE

May 15-16, 2015 Cleveland, OH

CHAPTER LEADERSHIP SUMMIT

June 11-12, 2015 Cleveland, OH

FALL CONFERENCE

October 21-24, 2015 St. Louis, MO



THE RECORD

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