# THE RECORD

Published by the National Tooling and Machining Association







# ENGAGE MANUFACTURING'S NEXT GENERATION RAFFLE

**To Benefit The National Robotics League** 

Take advantage of this opportunity to directly influence technology education at your local high school and prepare students for careers in modern manufacturing.

Win an all new Markforged Mark Two Desktop Carbon Fiber 3D Printer or a Haas Desktop Mill with Haas G-code Control for your local school. Respectively, these machines are the perfect combination of performance and affordability with the precision and power for real life manufacturing projects by students in their classrooms. Thank you to Haas Automation and to Markforged for donating these two machines for this raffle.

All proceeds to benefit the National Robotics League, NTMA's job-driven, project-based STEM learning experience to close the skills gap and promote pathways to careers in manufacturing.

Seed the Future of Manufacturing at Your Local School Raffle entries close on January 27, 2020 at 12:00pm EST.

Ticket Prices: \$100 for 1 / \$250 for 3
Purchase tickets at https://tinyurl.com/Raffle-NRL19



Markforged Mark Two Desktop Carbon Fiber 3D Printer



Haas Desktop Mill with Haas G-code Control









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Program to Support Additive Manufacturing Technology Insertion
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NCDMM Awarded a Prestigious Defense Manufacturing
Technology Achievement Award at DMC 2019

26-27

#### THE RECORD

#### **OPERATIONS & EDITORIAL**

Doug DeRose, Interim President

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#### **DESIGN & LAYOUT**

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#### **Welcome New Members**

#### **Ed Danzer**

**6K Products** 

#### **General Member**

www.6kproducts.com

#### Steven McNichols

Cornertech, Inc.

#### Florida West Coast Chapter

www.cornertech.com

#### Nick Bjelac

Siemens Weiss Spindle Service

#### **Cleveland Chapter**

www.weissgmbh.com/en

#### **Upcoming NTMA National Events**



#### **Chapter Leadership Summit**

January 26-28, 2020 Orlando, FL



#### **Spring Conference**

March 9-11, 2020 Cleveland, OH



#### **International Tech Tour**

April 18-25, 2020 Japan



# PRESIDENT'S UPDATE

December is once again upon us and that gives everyone time to reflect on another year gone by. As we move into the next decade, I'd like to look back on 2019 one last time. For NTMA, the year has been about change. From leadership at the top of the organization, to a new national event schedule for 2020, change has been the defining term for 2019.

This year we decided to step away from the annual AMT/MFG event and have three NTMA events in the spring, summer, and of cours, the fall, for the first time in 2020. As previously mentioned, the Spring Conference is in Cleveland, the Summer Conference in Phoenix and the Annual Fall Conference is in Kansas City next year. We hope that the new format will entice you and members of your organization to join us at one or more of these events to learn, network, and contribute to our industry!

In 2019 our focus workforce development grew, with the unveiling of AMPED, which will now include both the NRL and NTMA-U. Under the AMPED Board's

leadership, we have forged a relationship with the REC Foundation that will help to expose the NRL program to a wider audience in the future and better measure its impact. AMPED is also focused on gathering workforce development resources and tools in one location to help make it easier for the precision metalworking industry to engage, inspire, and prepare its present and future workforce.

During the year, a concentrated effort was made to reach out to members and chapter leadership to get feedback on what they need from their Association. More chapters were contacted and visited multiple times by staff and EC members than any year in recent memory.

The conversations were sometimes difficult, but they were all encouraging as they provided leadership with constructive input on improving the Association. During the year we focused on cost reduction and "right sizing" operations; a new dues and sponsorship program was approved for our National Associate

members with financial incentives to chapters; a marketing partner was hired to promote all areas of the Association; a strategic vision was set by the Executive Committee that will lay the ground-work for the future.

Change is never ending, and 2020 will be no different with a new president. In the meantime, I would like to say thank you for the opportunity to lead your Association. It has been a challenging year, but one I have also enjoyed. From the entire staff of NTMA, we wish you a Happy and Prosperous New Year for your business in 2020!

L D.Pr

Doug DeRose Interim President

### **NTMA MEMBERS**

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#### 2019 Year in Review

By Kelly LaMarca

2019 was an eventful year for the National Associate Members of the NTMA. From new partners, to product launches, to the change in the National Associate structure, 2019 will surely be a year to remember for the National Associates and for the NTMA membership as a whole.

The NTMA set out in 2019 to find a way to bring more value to the National Associate Members of the association as a whole. In the process we found that a change needed to occur with the structure of the National Associate program. What started out as a brainstorm idea quickly blossomed into an action committee being formed to vet the proposed structure. With a couple of revisions to the original idea, the National Associate tier structure was proposed first to the Executive Committee and then to the Board of Trustees. The program includes 5 tiers of membership. bundling the value that each National Associate receives into an easy to manage, easy to budget package. The different levels of investment give the National Associates access to the local chapters, advertising, and holistic sponsorship of events.

New National Associates came to the table in 2019 as well. We are happy to welcome Benz, Markforged and Paperless Parts at the end of 2019.

#### Here is a summary of each:



**BENZ** - A leading manufacturer and provider of components and systems for tool and machine technology worldwide. The company employs a workforce of over 300 and is represented by branch offices and trade partners around the world in over 30 countries. Our product portfolio includes development and production of cutting edge tooling systems for lathes and machining centers used for working with metal, wood, and composites. As the trendsetters of our industry, we stand for high-quality tooling and machine tooling solutions according to the customer's requirements. The core business of BENZ in the future will continue to be as a leader in technology for innovative tooling systems and machine tool accessories, decisively shaping the machining processes for companies working with metal, wood, and composites.



MARKFORGED - Transforming manufacturing by addressing 3D printing as a holistic solution. Our process innovations are only possible by a combined effort in advanced cloud computing, cutting edge materials science, and industrial design. Over our five years of existence, we've consistently pushed the boundaries of additive manufacturing—3D printing with new materials, developing novel platforms, and constantly iterating on our technology and processes. Our vision is to increase manufacturing system efficiency through better and faster ways of making functional prototypes, tools and fixtures, and end use parts—at scale.

### paperlessPARTS 📦

PAPERLESS PARTS - Champions for Manufacturing - We are a motivated group of creators with diverse backgrounds in manufacturing, mechanical engineering, software, start ups, and national defense. We are intentional in everything we do, gritty in the pursuit of excellence, and curious with a bias for action. Paperless was built for manufacturers, by manufacturers. We didn't start in a garage, like Microsoft or Amazon — we started in a job shop.

Over the last three years, we've spent time in hundreds of manufacturing operations: from the smallest one person job shop, to high volume production operations doing \$100M contracts. We've spoken with thousands of owners and operators, analyzed tens of thousands of 3D parts files, and supported millions of dollars in orders. After helping early adopters of all sizes realize their potential, we are ready to share the Paperless Platform with the world.

## Legislative Update

Ry Omar Nashashih

After millions of Tweets, countless hours of TV analysts screaming at voters, and months of investigations, one would not blame the American public for assuming Washington is a do-nothing town with few accomplishments. Even in this divided Washington, from workforce to trade and regulatory reform, manufacturers had some important victories.

NTMA succeeded in passing a bill into law that took effect on July 1, 2019, that ensures the middle school grades also have access to Career and Technical Education funding, an important step in filling the manufacturing workforce pipeline. Washington also agreed to and restored full funding levels for Manufacturing Extension Partnerships (MEPs) as the administration sought to create a new apprenticeship platform for small businesses run by their trade associations.

The Trump administration continued to target burdensome and ineffective regulations identified by the NTMA and others. Reversing an Obama era move to double the overtime threshold, the Department of Labor instituted a more reasonable \$35,568 level effective January 1, 2020. The EPA in June 2019 also took steps to reverse a rule that, by its own admission, would increase the price of electricity annually by 6 to 20 percent.

NTMA worked throughout the year to support a trade agenda that promotes small and medium sized manufacturers who will see an updated NAFTA that places an emphasis on domestic auto parts and, after years of lobbying, the federal government formally recognized China as an illegal currency manipulator in August 2019. Tariffs on imported steel and aluminum from Canada and Mexico were rescinded and manufacturers are seeing more stability than in the past several years.

No one said making actual policy was a glamorous process and it certainly does not attract headlines during times of constant controversy. However, if a voter should want a glimmer of hope from Washington this holiday season, one can proudly look at the progress made in 2019 to strengthen manufacturing in America.



# Future-Proof your Machine Shop with Blockchain

Join the industry's first blockchain-enabled manufacturing network and unlock new income streams today





Monetize idle machinery.



Win clients without ads.



Earn rewards for quoting.

SyncFab helps expand your client base with vetted jobs from prequalified buyers across America.

Our platform streamlines your operations with all-in-one quoting, payment and production tracking.

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**PARTNERS** 



# Quote Faster and Increase Your Revenue with Paperless Parts

Contributed by Roger Maranan, Head of Product - Paperless Parts, Inc.

The world is rapidly changing for custom parts manufacturers. A small number of well-funded players are beginning to dominate the market for custom manufactured parts. The expectations of parts buyers are changing too. A recent survey shows that 53% of buyers expect a response to their RFQs in 24 hours or less. Where should manufacturers look for growth opportunities in an increasingly competitive market?

#### Overengineered Quotes--The Revenue Opportunity You Already Have

In speaking to hundreds of custom parts manufacturers, the average win rate is about 30% for quotes sent. For most custom parts manufacturers, teams spend countless hours working on quotes. This includes calculating material requirements on pen and paper and spreadsheets, programming to determine run times, scanning CAD and prints for manufacturability issues, admin time entering data into your ERP system, and much more. Manufacturers waste so much time and energy, especially when they lose 70% of quotes. Instead of making parts, the most experienced machinists are overengineering quotes. Overengineering increases quote turnaround times. Longer response times decrease a shop's chance of winning the work.

"Today's customers have little patience for waiting a few days to a couple weeks to receive a quote for a job," says Dan Villemaire, President of C&M Precision Tech in New Hampshire. "In this increasingly fast-paced, competitive environment, we simply have to reduce the time and effort required to create and deliver quotes, without negatively impacting the accuracy of our job estimates."

Fortunately for Dan Villemaire and other manufacturing business owners, they use Paperless Parts to help streamline their quoting process and grow their business.

# Streamlined Communication, Faster Quoting, and Revenue Growth with Paperless Parts

Paperless Parts is the secure, ITAR-compliant manufacturing platform built to streamline the communication and quoting for custom parts manufacturers. It supports a variety of manufacturing processes including CNC milling and turning, sheet metal, additive, lasercut, waterjet, and wire EDM.

As Villemaire states, "With Paperless Parts, we can create more accurate quotes more quickly—increasing the overall volume of quotes and shortening our quote-to-cash cycle—while reducing quoting overhead and boosting the overall efficiency of our shop. Paperless Parts gives us the quoting agility and flexibility that we need to continue to grow our business."

#### The platform does this in 3 ways:

- 1. Streamlining the communication in the shop and with customers.
- 2. Leveraging geometry to drive fast and accurate quoting.
- 3. Providing customers a digital experience that helps manufacturers capture expedite value.

#### **Streamlining Communication**

Paperless Parts gives everyone in the shop, from the estimators in the front office to the operators on the floor, the ability to view 2D and 3D CAD replacing the need for additional CAD licenses or downloading stand alone viewers. All files are uploaded to one place, capturing the full technical data package of parts, ensuring that everyone has what they need to do their job.

Teams can communicate on details right in the CAD file, highlighting features that might require special tooling or details that need customer input.

"The built-in Paperless Parts 3D CAD viewer makes communication with the customer during the quoting process quick and easy," says Paperless Parts customer Justin Quinn, President of Focused on Machining based in Colorado. "With Paperless Parts, we can identify, highlight, and comment on a feature of the part in question and send a link to the customer through which they can view the identical feature, highlight, and my comments about it. This helps us more easily deal with potential manufacturing issues during the quoting process, such as showing the customer how a feature like a sharp corner that increases machining costs can be modified to reduce the price."

# Leveraging Geometry to Drive Fast and A ccurate Quoting

To streamline quoting, Paperless Parts analyzes the geometric features from 3D part files to estimate operations and quickly generating pricing. To increase accuracy and consistency in the quoting process, the platform enables manufacturers to create templates around they quote, automatically adding operations used for their different manufacturing processes. All pricing formulas can be customized to how each manufacturer prices their operations.

With the part geometry, the platform also estimates material pricing and even provides instant pricing recommendations from metals vendors like Online Metals. Additionally, the geometric analysis will identify design for manufacturability (DFM) issues, enabling teams to catch issues before they become problems.

"Time is valuable, and with Paperless Parts, we can create and send out 20 quotes in the time that it used to take us to complete one," notes Andrew Reeves, Business Development and Department Manager at Vaupell Rapid Solutions.

# paperlessPARTS 📦

A Better Customer Experience and Expedite Revenue In addition to responding to quotes faster, manufacturers using Paperless Parts are able to provide their buyers a better buying experience with the Digital Quote. A big value of the Digital Quote is the ability for the manufacturer to provide expedite options, removing the awkward negotiation that happens when a customer wants their parts sooner.

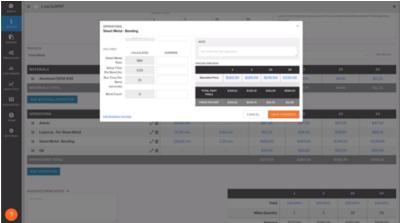
Villemaire notes, "We were surprised by the fact that many customers choose to pay for expedited delivery. In just the first three months of using Paperless Parts, we received \$40,000 in additional expedited revenue that we would not have seen in the past."

#### A Competitive Advantage with Paperless Parts

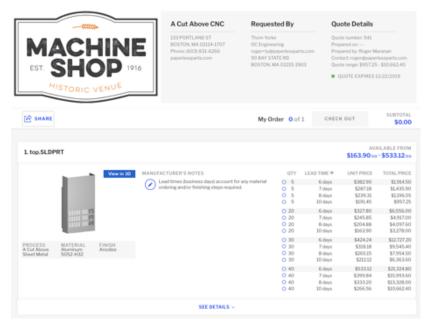
With how the world is changing for manufacturers, it is easy to look to new machines, shop floor automation and robotics, and sensors for machine monitoring as ways to grow. These all seem like logical approaches, however the true key to unlocking growth in your business is the ability to drive increased profitability by leveraging the people and processes you already have. With Paperless Parts, manufacturers are able to focus on providing a better service to their customers and get higher profitability from the work they are doing, which makes investing in new technologies even easier.

"We implemented Paperless Parts in 2017, and our annual revenue increased more than 70 percent from 2017 to 2018, with expectations for revenue growth again in 2019," Reeves explains. "While Paperless Parts isn't the only reason that we've grown, it's a substantial part of our success. We're now using Paperless Parts analytics to justify investments in new capital equipment, including a new fused deposition modeling (FDM) machine and a new 5-axis CNC machine."





Paperless Parts makes it easy to generate quotes based on the part geometry. In this image, the number of bends are automatically identified to generate pricing for a part.



An example of the Digital Quote with expedites

# Tax Tips for Manufacturers & Distributors: How State and Local Incentives Can Subsidize Your Growth Initiatives

Contributed by Chris Baltimore



Whether your manufacturing or distribution company is planning to expand, add more employees or bring in new technologies, growth takes investment. What companies may not be aware of is a benefit that could help offset those growth-related expenses — state tax incentives.

Tax incentives benefit both your company and the state. When manufacturing and distribution companies expand, they make investments in expensive equipment. And because they have a lot of equipment, they tend to stay in the same physical location for a long time, providing sustained economic activity for the state. They also bring in a range of high-quality jobs for state residents, including jobs for suppliers and distribution/logistics. State and local tax incentives could subsidize growth for your business by providing a range of benefits, including payroll and withholding rebates, income tax credits, property tax abatements, training grants for net new hires, and sales and use tax exemptions.

# Activities That Could Trigger State & Local Tax Incentives

Most states offer tax incentives to companies to encourage domestic growth. These opportunities help businesses that are already located in the state and also help the state attract new growth-oriented companies.

Each state has its own incentives, programs and targets. Generally, incentives tend to benefit companies that are:

- Expanding a current facility or opening a new facility
- Adding net new employees
- Making a significant capital investment in buildings or new equipment
- Incorporating a new technology that changes the way the company does business

Some states may also have specific industries of focus. Manufacturing and distribution companies are almost universally incentivized because of the benefits outlined above.

States typically offer two types of tax incentives

— headcount incentives and capital investment
incentives. Some states offer both, while others offer
only one. And some states require a large capital
investment to qualify for the headcount benefits.

#### **Headcount Incentives**

It's important to understand that the term "headcount" refers only to "net new hires" — not to people hired to replace employees who have left. The size of the incentive will depend on the number of net new hires you plan to add to your workforce but may include:

- Payroll/withholding rebates
- Income tax credits
- Training grants for net new hires



Training grants can be particularly lucrative because they take the form of cash reimbursements and can be used to offset the cost of training new employees or training existing employees on new technology. States may also have programs that allow qualified companies to retain the withholding or payroll taxes for net new hires. These incentives create positive cash flow.

If your company has isolated which of its locations will be bringing on the new employees or has the location down to a small number of contenders, it should investigate its headcount incentives. Many of these incentives, such as training grants, must be applied for and accepted before (or as) the new employees starts.

#### **Investment Incentives**

Capital investment incentives vary from state to state. There are three typical capital investment incentives:

- Income tax credits
- Property tax abatements
- Sales and use tax exemptions

Capital investment incentives may be particularly attractive because some manufacturers that have been operating in other countries may be moving parts of their operations back to the U.S. in response to recent tariff activity.

If you are looking to make significant capital investments, you should consider the available property tax abatements and exemptions before you make your final decision because that may affect where your business decides to put its investments to use.

#### **Avoid Disqualifying Issues**

The application process has many requirements and deadlines to meet. Your company should designate a key employee to focus on handling the paperwork and addressing any follow-up requests or questions promptly. It's also a good idea to designate a second contact who's knowledgeable about the application process — someone who could take over if the designated employee leaves or is unable to complete it.

If the short application window closes before the application goes through, your business will miss the chance to qualify. Incomplete paperwork will also disqualify your company. And if there are errors in the application, the business will not only be disqualified but may also have to repay any benefits previously allowed.

Finally, you'll need to pay close attention to all company communications about your plans; some state and local tax incentives may be invalidated by public announcements about the company's decision to add new jobs or locations.

#### Conclusion

State tax benefits could help offset the costs of hiring new employees, purchasing new equipment, and acquiring the up-to-date technology you need to be competitive in your market. But time is of the essence. If your business is planning to make new hires or capital investments, it's important to investigate the state and local tax incentive options early.



Chris Baltimore, National Director of CBIZ

As soon as a company decides what headcount or equipment will be added, it should evaluate its state and local tax incentives options. Many tax incentives have a short application window for benefits, and the negotiations between companies and the state over incentives can take several months.

Once the negotiations are completed, the business will receive a "package" of benefits, which may need to be finalized before new employees are hired or new equipment purchased.

#### **Related Reading**

 Economics Lesson: 3 Mistakes to Avoid Leaving State Incentive Money on the Table

#### **Your Team**

Should you have questions on this topic, as in situations where multiple jurisdictions could be considered, don't hesitate to contact:

Chris Baltimore, National Director of CBIZ State Incentives & Training Grants practice.

You can reach him directly at cbaltimore@cbiz.com or 816.945.5273.



## Stop Searching for Superman

Contributed by Bill Padnos

In November, I had the opportunity to both present and exhibit at the FABTECH 2019 in Chicago. Throughout the week, I was able to connect with NTMA members along with potential members of our organization and NRL champions. Besides my own presentation, I was able to attend a very valuable session about Millennials in Manufacturing by Adria Haines at Lantek Systems, Inc. I look forward to sharing insights from her presentation in a future article.

Toward the conclusion of the Expo, I sat in on a featured session on Building Tomorrow's Workforce and I was blown away by one of the panelists, Robert Tessier, National Director of Advanced Fabrication Technologies at Airgas. I have attended many sessions and read numerous articles and white papers on the subject about attracting and retaining talent. For some reason, Robert's frankness and direct answers to the moderator's questions just connected with me. Instead of pontificating to the audience that he has found the secret sauce to solve the skills gap, he stated obvious solutions to the greatest problems facing industry.

I took out my phone and immediately sent a LinkedIn connection request to him. I searched through his profile and saw that he wrote an article for the AWS Welding Journal titled "Quality vs. Quantity: How to Train and Retain the Welding Industry's Best." In the article, he has five main themes: Stop Searching for Superman, Cultivate a Strong Environment to Inspire, Trust in Teamwork, Offer an Objective Career Path, and Invest in Talent. While this article had a focus on welding, the lessons learned can be easily applied to the precision metalworking industry.

Under **Stop Searching for Superman**, Robert noted that it would be great to hire a Superman who will meet every criteria that you have laid out in the job description. However, more often than not, he or she isn't out there or applying for your open position. Instead, strive to hire the strongest candidate that might not check off every box in the job description. The odds of finding the perfect candidate are small, hire the person based on potential. Provide opportunities for the new hires to find their place in your company to be an effective employees instead of trying to put the

round peg in the square hole. If not, you will find yourself soon needing to going back to square one because of your insistence on looking for a candidate that has superhuman strength, speed, and senses.

With the **Cultivating a Strong Environment to Inspire** section, I want to jump to Robert's last paragraph and his statement that people typically leave a company because they don't see a future for themselves or advancement opportunities within the organization. Do you instill in your employees that you desire for them to have a long-lasting career at your company, or do they just feel that they have been hired to fill a position for now? Are you providing them with hope for growth within your company with encouragement and top notch resources that will help them become skilled workers, or are they just learning how to operate the machine that you need for them to use to make that part?

Robert states the obvious in this section: "Companies that provide training and opportunities for top talent are more competitive." The more that you concentrate your efforts on retaining and engaging your workforce, the less time you will need to spend on refilling open positions. It is better for you to fill open positions when your current employees are helping in the recruitment process, than "posting and praying" that a quality candidate will be looking on Indeed for an open machinist position.

We are coming to the end of year. When you are conducting your performance reviews, are you using this process to inspire your employees and mutually deciding on a new skill the employer needs the individual to learn that year and plan for time at work to study to learn that skill? Are you asking your employees what skill they are interested in gaining and mutually agreeing on how they can get that experience? Or, are you helping your employees understand what new skills you would like them to learn, how you will support them to obtain those skills and how it will both benefit them and the company?

His section on **Offer an Objective Career Path** is about human nature and your employees wanting to know where they are going and how they are going to get there. This is not just about learning skills, it is about opportunities to grow within the company. Do your employees understand how what they are learning now will benefit them in the future? Showing an investment in the person and their growth will have a direct benefit on the profitability of the company. This will help to strengthen your teams and provide you with talented individuals that have grown as professionals in your company to fill open positions due to retirements.

Over the past year, I have learned a tremendous amount about manufacturing workforce development. I feel confident that I can state that there is no downside to being active in attracting new talent and investing in them to stay. I am also proud to say that NTMA provides you with the resources to attract, train, and retain your workforce. The NRL program is a great way to connect with students that are not on the pathway to a career in manufacturing and help them to gain skills and a better understanding about careers in manufacturing. The NTMA Pre-Apprenticeship program is an opportunity to enhance that connection with students and start them in a machinist apprenticeship program while they are still in high school. The Mechanical Aptitude Test is a way to determine if a candidate who does not check all of the boxes has the innate ability to succeed in a manufacturing career.

NTMA-U provides you with access to the related instruction for a machinist apprenticeship program that is approved by the Office of Apprenticeship.

NTMA's commitment to NIMS has enabled employees to earn credentials from learning new skills. Chapter Programs and National Conferences provide learning opportunities for all individuals at all levels of an organization. Learning can be done through NTMA webinars, attending sessions, or peer-to-peer conversations.

As this year is ending and we are getting ready for 2020, take a moment to see if you have taken advantage of these member benefits to attract, train, and retain talent that will help your company grow. I will be glad to be a resource for you and help you learn how to build your workforce for today and tomorrow. I can always be reached at bpadnos@ntma.org or 216-264-2828.



# Introducing a NEW, simplified benefits offering for a lower administrative cost



#### Health • Dental • Vision • Life Insurance

Because the NTMA is an affiliate member of the National Association of Manufacturers (NAM), NTMA members now have access to NAM Health Care: a new benefits offering that simplifies the health care experience for both you and your employees through a convenient, easy-to-use web-based platform. NAM Health Care allows smaller member companies to band together to take advantage of the enrollment efficiencies, administrative cost savings and product flexibility previously only available to larger manufacturing companies. Advantages include:

- Access to more competitive product bundles.
- Fully ACA-compliant.
- Quicker and easier-to-use online enrollment process.
- Simple and convenient ongoing benefits management and administration.
- Reduced administrative costs.

#### Learn more at www.ntma.org or 855-463-8856.

It's easy to get a quote and we're here to help if you have any questions.

NAM Health Care is fully ACA-compliant, administered by Mercer and sponsored by the National Association of Manufacturers (NAM), of which the NTMA is an affiliate member. Plans are not available to member employers in all states.





Program Administered by Mercer Health & Benefits Administration LLC AR Insurance License #100102691 | CA Insurance License #0G39709 In CA d/b/a Mercer Health & Benefits Insurance Services LLC

# 2019 Awards & Recognition



Team Leader Award —
Donald Lloyd — Nominating Team Leader 2017-2019
Mark Lashinske — Chairman



#### Years of Service Awards (Left to Right)

Roy Sweatman — Southern Manufacturing Technologies Inc. — 35 Years Deborah Bryant — Rhode Island Centerless, Inc. — 30 Years Gilbert Melton — Precision Machine & Instrument Company — 30 Years Donald Lloyd — The Lloyd Company — 40 Years Mark Lashinske — Chairman



#### Emerging Leaders Horizon Award

Mark Lashinske – Chairman Gretchen Homeyer – Homeyer Precision Manufacturing



#### Arthur Tilstone Technology Award – (Left to Right)

Mark Lashinske – Chairman Ryan Vecchi – J.V. Manufacturing Scott Kowalski - J.V. Manufacturing Kevin Beach – Manufacturing Technology Team Leader



#### **Emerging Leaders Strategic Partner Award**

Mark Lashinske – Chairman Chris Kaiser – BIG Kaiser, Inc.

Gretchen Homeyer – Homeyer Precision Manufacturing



Most Improved Chapter Mark Lashinske — Chairman Kaity Van Amersfort — San Francisco Bay Area Chapter



Chapter of the Year Awards Mark Lashinske – Chairman NJ Goulet III – Connecticut Chapter Kaity Van Amersfort – Chapter Executive Team Leader Tami Adams – Northwestern PA Chapter Greg Wasko – Northwestern PA Chapter



LA SOMMER Award Ken Seilkop – AG Tool and Die Co. Mark Lashinske – Chairman



Star Chapter Awards



30 Under 30 Recipients



#### 6S Excellence Award (Left to Right)

Mark Lashinske - Chairman Steven Tamasi — Boston Centerless, Inc. Matt Wardle — JD Machine David Weyreter — Major Tool & Machine, Inc. Peter Doyle — Hirsh Precision Products, Inc. Ted Toth — Rosenberger, North America Pennsauken, Inc.

 ${\it Kevin Beach-Manufacturing Technology Team\ Leader}$ 

# General Sessions





















## **Breakout Sessions** & Roundtables











# Networking & Fun



# The U.S. Department of Labor Announced its Final Rule on Earning Thresholds for the Executive, Administrative, and Professional Exemptions:

#### **What Your Business Needs to Know**

On September 24, 2019, the United States Department of Labor (DOL) issued its final rule on the minimum salary threshold for exempt executive, administrative, and professional employees under the Fair Labor Standards Act (FLSA). The final rule — effective January 1, 2020 — will replace the prior 2016 version which was enjoined by a federal judge in Texas just days before it was set to take effect, and which has been languishing in a federal appeals court ever since.

#### The Basics

The so-called "white collar" exemptions — those for executive, administrative, and professional employees — are the most common exemptions from the FLSA's minimum wage and overtime requirements. To claim the exemption, three criteria must be satisfied: (1) the employee performs exempt executive, administrative, or professional "duties" as defined by the regulations; (2) the employee is paid on a "salary basis" — that is, without reference to the quality or quantity of their work; and (3) the employee is paid at least the minimum weekly salary amount established by the DOL. The final rule changes only the last of these requirements.

#### New Minimum Salary Threshold is \$35,568 Per Year

The current salary minimum to claim these exemptions — established in 2004 — is \$23,660 per year, the equivalent of \$455 per week. The new minimum salary for these exemptions would raise the annual minimum salary to \$35,568 per year, the equivalent to \$684 per week. This is slightly higher than the amount set forth in the proposed rule issued in March.

#### Bonus, Incentive, and "Catch-up" Payments

The final rule has two new features relating to this salary minimum that employers can welcome.

First, employers are permitted to "count nondiscretionary bonuses and incentive payments (including commissions) to satisfy up to 10 percent" of the new minimum salary amount, provided that such "bonuses are paid annually or more frequently."

Second, the final rule permits employers to make "a final 'catch-up' payment within one pay period after the end of each 52-week period to bring an employee's final compensation up to the required level." (An employer may use any 52-week period, such as a calendar year, a fiscal year, or an anniversary of the hire year.) To take advantage of this "catch-up" rule, an employer must pay exempt executive, administrative, and professional employees "90 percent of the standard salary level (\$611.10 per week), and if at the end of the 52-week period the salary paid" plus eligible bonuses and incentives do not satisfy the annual minimum, the employer would be required to make up the shortfall in one pay period.

This new flexibility in meeting the minimum salary requirement for these exemptions will undoubtedly be welcome by many employers, especially those whose exempt employees are entitled to certain bonuses and commission payments. But employers should be sure not to forget to "catch-up" or risk losing the ability to claim the exemption.

# Highly Compensated Employee New Minimum of \$107,432

Under the current version of the Highly Compensated Employee exemption, employees who earn at least \$100,000, perform office or non-manual work, and "customarily and regularly perform at least one" of the exempt duties of an executive, administrativ, or professional employee, also are exempt from the FLSA

minimum wage and overtime requirements. The final rule raises that minimum salary for "highly compensated employees" to \$107,432 per year, of which \$684 must be paid weekly on a salary or fee basis. The amount in the new final rule is significantly less than the proposed rule, which would have raised the minimum salary for this exemption to \$147,414 per year.

#### No Automatic or Quadrennial Updates

In its proposed rule, the DOL proposed updating the minimum salary levels every four years.

However, although the DOL's comments on final rule "reaffirms its intent to update the standard salary level ... more regularly in the future using notice and comment rulemaking[,]" it declined to do so either automatically or every four years as the proposed rule would have done.

#### Preparing for the New Rule

Now that employers know what the minimum salary requirements are for these common overtime exemptions, employers can begin evaluating which employees may be impacted and act accordingly. Employers should consider whether they want to use non-discretionary bonus and incentive payments toward exempt executive, administrative, and professional employee salaries, and if they choose to do so, should work with counsel to make sure the policy complies with the final rule's requirements.

# 2020 NATIONAL TOOLING AND MACHINING ASSOCIATION NTMA CALENDAR OF EVENTS

#### **Chapter Leadership Summit**

#### January 26-28 - Orlando, FL

Connect. Learn. Lead. Chapter Leadership Summit is all about maximizing your NTMA membership at the local level. Learn ways to engage your chapter and build your regional coalition for stronger companies and a stronger industry.

#### **Spring Conference**

#### March 9-11 - Cleveland, OH

Strategize, revitalize, and let NTMA equip you and your business with the tools you'll need to succeed. Join NTMA during our Spring Conference offering business development sessions, educational speakers, and our highly rated roundtable discussions and networking events — these are conferences not to miss!

#### International Tech Tour

#### April 18-25 - Japan

Take this opportunity to learn and observe global best practices that can be applied in your own company. We've scheduled strategic stops and tours to highlight some of Japan's most successful manufacturing companies.

#### **Emerging Leaders Conference**

#### April 27-29 - Kansas City, MO

To ensure the future success of our businesses and our industry, we have to build the future today. NTMA gathers the best and brightest up-and-coming industry leaders to network, share knowledge, and brainstorm about tomorrow's manufacturing industry.

#### **Legislative Conference**

#### TBD - Washington, D.C

There's power in our collective voice. Join NTMA member companies from across the country as we converge in Washington to meet with legislators and policy makers.

#### **NRL Competition**

#### May 14-16 - Akron, OH

Crunching metal, flying sparks — it's a gladiator-style competition between robots designed and built by students. Come witness tomorrow's workforce in action today. It's a battle of epic proportions that truly is a win for both students and industry.

#### **Summer Conference**

#### June 15-17 - Phoenix, AZ

Strategize, revitalize, and let NTMA equip you and your business with the tools you'll need to succeed. Join NTMA during our Summer Conference offering business development sessions, educational speakers, and our highly rated roundtable discussions and networking events — these are conferences not to miss!

#### **Annual Fall Conference**

#### October 27-30 - Kansas City, MO

NTMA's signature event is not to be missed! Our annual conference pulls together all that is great about NTMA into three days packed with networking, advocacy, and learning. You'll enjoy nationally acclaimed speakers, roundtable discussions, social events, and sessions designed to educate and inspire — consider it an opportunity to recharge both personally and professionally.

Please Contact Kristen from our Events Manager for more information and to register:

## Work on Your Business Tennessee Chapter

The NTMA-TN Chapter held a member and visitor event on November 7th titled "Work ON Your Business." Guest speakers included Steve Kline from Gardner Media (Cincinnati, OH) and James Soto from Industrial Strength Marketing (Nashville, TN). Their presentations centered around benchmarking and marketing fundamentals relevant to companies who provide machining services. The event drew over forty attendees from Tennessee, Southern Kentucky and Northern Georgia.

"Our chapter's vision for this event was to provide NTMA members, as well as prospective members, insight from creditable professionals about subjects relevant to their business. Our goal was for attendees to leave with insight and ideas that could make a difference in their business. The positive feedback we received leads us to believe we achieve our goal."

- Bob Young NTMA-TN Chapter president.









Honoring James A. Cokley

It is with great sadness that we inform you of the unexpected passing of James A. Cokley, Owner/CEO of Coinco, Inc. Jim passed away on Saturday, Deember 7, 2019. Jim has been a part of Coinco, Inc. for the past 47 years and will be greatly missed.

In honor of Jim's memory, Coinco, Inc. was closed on Wednesday, December 11, 2019 for his funeral. Please be patient with us during this difficult time of transition

Rober Boozer, President of Coinco, Inc. and Carter Boozer, Vice President of Coinco, Inc. will remain your contacts.



Robert Boozer: boozer@coincoinc.com
Carter Boozer: cboozer@coincoinc.con
General Inquiries can be sent to the office:
info@coincoinc.com or by phone 814-425-7407.

# TECHNOLOGY TOUR - JAPAN NTMA APRIL 18-25, 2020











#### Break away from your routine and get inspired!

Reserve your spot on the NTMA 2020 Tech Tour and gain a fresh perspective when you go behind-the-scenes at world-class manufacturing facilities in Japan. Share experiences and exchange ideas with peers and National Associate Members. Gain insight and ideas that will improve your day-to-day operations in ways you can't even imagine. Leave your worries behind as your sponsors take care of the details from your arrival in Nagoya to departure from Osaka at the end of the tour.

#### **Preliminary Schedule for 2020**

SAT 4/18 Departing flights from U.S. & Canada.

**SUN 4/19** Arrivals day! Your hosts will arrange your transportation from the Nagoya airport to a nearby hotel. Check in and unwind before a casual welcome dinner. [stay Nagoya]

MON 4/20 Visit OSG Corporation's Global Technology Center for product demos and presentations. Tour the Yana tap facility - world's largest - and the Oike carbide drill factory. [stay Nagoya]

TUE 4/21 Depart for Iga, home of the largest production facility in the DMG MORI group. See a full range of turning, milling, 5-axis and additive machines. [stay Kyoto]

WED 4/22 Enjoy a day in the historic city of Kyoto, famous for classical Buddhist temples, traditional gardens, imperial palaces and traditional wooden houses. [stay Awaji Island]

THU 4/23 Visit the world headquarters and production facility of BIG Daishowa (BIG Kaiser). Learn about the "Liquid Tool" of Blaser Swisslube during an afternoon seminar and machining demonstrations. [stay Awaji Island]

FRI 4/24 Depart for a morning tour of the Osaka factory of BIG Daishowa. Enjoy afternoon free time before a farewell dinner party. [stay Osaka]

**SAT 4/25** Flights departing Osaka arrive in the U.S. & Canada same day.



#### Your hosts will provide:

- Ground transportation & airport transfers in Japan
- Hotel for 6 nights
- Most meals & activities

NTMA members are responsible for the \$495 NTMA registration fee & flight to Nagoya/from Osaka. Or ask about the discount for firsttime attendees.

Travel questions? E-mail Dana at dana.super@us.bigkaiser.com.

## NCDMM and Catalyst Connection Announce Next Phase of AMNOW Program to Support Additive Manufacturing Technology Insertion into the U.S. Army Supply Chain

Phase 1 Seeks to Develop and Prove Out a Prototype Digital Thread AM Supply Chain

AMNOW Blairsville, Pa. — November 26, 2019. The National Center for Defense Manufacturing and Machining (NCDMM) along with its National Additive Manufacturing Innovation Institute, America Makes, and partner Catalyst Connection, proudly announce the next phase of the AMNOW program to support additive manufacturing (AM) technology insertion into the existing U.S. Army supply chain. Through the creation of a robust AM supply chain and clear technology AM transition path, AMNOW will help increase the U.S. Army's readiness and facilitate on-demand production of materials in support of warfighters and commanders on the battlefield.

"We are excited to get Phase 1 of AMNOW started, building upon the successful momentum of the initial phase," said Dean L. Bartles, Ph.D., FSME, FASME, NCDMM President and CEO. "AMNOW Phase 1 will focus on developing a prototype digital AM supply chain that considers and evaluates the current and future Army and supply chain capabilities. Ultimately, the creation and integration of a digital AM supply chain will enable the rapid transfer of validated data and information to be exchanged between the U.S. Army and its suppliers, accelerating AM on-demand production of critical parts."

Structured as a multi-phase, multi-year contract, AMNOW is funded by the U.S. Army Combat Capabilities Development Command (CCDC) Aviation & Missile Center under the newly formed U.S. Army Futures Command. The U.S. Army Combat Capabilities Development Command (CCDC) Aviation & Missile Center provides increased responsiveness to the nation's warfighters through aviation and missile capabilities and life cycle engineering solutions.

The AMNOW program launched in April 2019 with the award of the initial phase, which was secured jointly by NCDMM in partnership with Catalyst Connection.

U.S. House of Representative members Tim Ryan (D-OH) and Mike Doyle (D-PA) played an instrumental role in securing the funding for the AMNOW program, as well as championing the NCDMM and Catalyst Connection partnership. Both Congressmen Ryan and Doyle are staunch supporters of and advocates for the manufacturing industry. They are also very familiar with the work of both organizations and their respective manufacturing and economic contributions to the Tech Belt region of northeastern Ohio and southwestern Pennsylvania.

"I would be remiss if I didn't take a moment to acknowledge Congressman Ryan and Congressman Doyle for their ongoing efforts in support of our nation's manufacturing sector," added Dr. Bartles. "We have a shared mission of working to increase domestic manufacturing strength and ensuring our nation's military readiness. They both also understand the potential of AM technologies within the manufacturing and defense industries. The AMNOW program will result in significant tactical and strategic advantages for the Army. We are grateful for their work to secure funding for the AMNOW program and their confidence in NCDMM and Catalyst Connection to execute it."

As AMNOW Phase 1 gets underway, NCDMM and Catalyst Connection will bring on more project partners to join initial phase collaborators, The Barnes Group Advisors LLC and the Office for Operational Excellence at the University of Alabama in Huntsville.

Phase 1 of AMNOW will be an extensive effort with a duration of three years. NCDMM and Catalyst Connection, along with its project team, will conduct a rigorous benchmarking and evaluation process. This assessment of the Army and its supply chain will identify deficiencies and opportunities, along with current and future needs and capabilities, in order to develop the prototype AM digital thread.

#### **About NCDMM**

NCDMM delivers innovative and collaborative manufacturing solutions that enhance our nation's workforce and economic competitiveness. NCDMM has extensive knowledge and depth in manufacturing areas—both commercial and defense—to continually innovate, improve, and advance manufacturing technologies and methodologies. Our experienced team specializes in identifying the needs, the players, the technologies, and processes needed to attain optimal solutions for our customers. We connect the dots. That's the NCDMM methodology. NCDMM also manages the national accelerator for additive manufacturing (AM) and 3D printing (3DP), America Makes—the National Additive Manufacturing Innovation Institute. For additional information, visit the NCDMM at ncdmm.org and follow @NCDMMnews on Twitter.



#### **About America Makes**

Driven by the National Center for Defense
Manufacturing and Machining (NCDMM), America
Makes is the National Additive Manufacturing
Innovation Institute. As the national accelerator for
additive manufacturing (AM) based in Youngstown,
Ohio, America Makes is the nation's leading and
collaborative partner in AM and 3DP technology
research, discovery, creation, and innovation.

Comprised of member organizations from industry, academia, government, non-government agencies, and workforce and economic development resources,

the America Makes membership community is working together to innovate and accelerate AM to increase our nation's global manufacturing competitiveness. America Makes is the first of eight Manufacturing Innovation Institutes established and program managed by the U.S. Department of Defense as public-private partnerships. America Makes is also a member of the Manufacturing USA® network, which seeks to secure U.S. global leadership in advanced manufacturing. For more information about America Makes, visit americamakes.us and follow @AmericaMakes on Twitter.

#### **About Catalyst Connection**

Catalyst Connection is a private not-for-profit organization headquartered in Pittsburgh, Pa. It provides consulting and training services to small manufacturers in southwestern Pennsylvania, accelerating revenue growth and improving productivity. Through active collaboration with its clients and the manufacturing community at large, Catalyst Connection contributes to the growth, vibrancy, and ongoing robustness of manufacturing in the southwestern Pennsylvania region. Catalyst Connection is supported, in part, by the Commonwealth of Pennsylvania, Department of Community and Economic Development, and by the National Institute of Standards (NIST) and Technology's Hollings Manufacturing Extension Partnership (MEP). The MEP National Network is a unique public-private partnership that delivers comprehensive, proven solutions to U.S. manufacturers, fueling growth and advancing U.S. manufacturing. For more information, visit catalystconnection.org.

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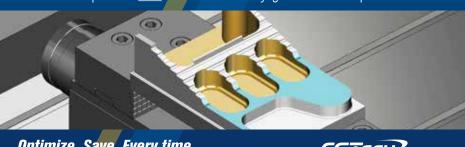
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## NCDMM Awarded a Prestigious Defense Manufacturing Technology Achievement Award at DMC 2019

Blairsville, Pa. — December 3, 2019. The National Center for Defense Manufacturing and Machining (NCDMM) proudly announces it was named as a winner of a prestigious Defense Manufacturing Technology (ManTech) Achievement Award yesterday at the Defense Manufacturing Conference held at the Phoenix Convention Center in Phoenix, Ariz.

NCDMM was recognized in the category of "Readiness Improvement" for its additive manufacturing (AM), three-phase research project for the "Maturation of Advanced Manufacturing for Low-Cost Sustainment (MAMLS)" program, which was funded by the Air Force Research Laboratory (AFRL), Materials and Manufacturing Directorate, Manufacturing and Industrial Base Technology Division.

The MAMLS program is the largest AM focused effort on sustainment, maintenance, and repair technologies that has ever been organized to date. It is led by NCD-MM's national additive accelerator, America Makes, the leading and collaborative partner in AM technology research, discovery, creation, and innovation. It is the first of eight Manufacturing Innovation Institutes established and managed by the U.S. Department of Defense as public-private partnerships. America Makes is also a member of the Manufacturing USA® network, which seeks to secure U.S. global leadership in advanced manufacturing.

The Joint Defense Manufacturing Technology Panel (JDMTP), which is comprised of managers from the U.S. Army, U.S. Navy, U.S. Air Force, and Defense Logistics Agency (DLA) ManTech Program and an ex-officio representative from the Office of the Secretary of Defense (OSD), selected the winners of the Defense Manufacturing Technology Achievement Awards.

"I speak for all of us at NCDMM and America Makes when I say that we are incredibly honored to be awarded the Defense ManTech Achievement Award in the category of 'Readiness Improvement' for the AFRL MAMLS program," said Dean L. Bartles, Ph.D., FSME, FASME, NCDMM President and CEO. "The MAMLS program has been an extensive multi-year, multi-phase ongoing effort that will yield results that will have a

tremendous impact on the strategic readiness of the U.S. Air Force. There's no question that the outcomes of the MAMLS projects will substantially increase the entire sustainment community's understanding and use of additive manufacturing technologies. We thank the JDMTP for this great honor."

The goal of the MAMLS program is aimed at improving efficiency of the factory and/or U.S. Air Force (USAF) Air Logistics Complexes for rapid part replacement for legacy and other aircraft.

Currently, sustainment poses a number of challenges to keeping aerospace systems across all USAF legacy aircraft ready and available. With a USAF aircraft having the average lifespan of approximately 27 years, critical parts are often out of production for a variety of reasons, including obsolescence, cost to create, and low-quantity requirements.

Maintaining its fleet in a cost-efficient manner using AM, along with other advanced manufacturing technologies, is critical to the strategic readiness of the USAF today and well into the future.

In order to enhance and improve USAF sustainment operations through the development, demonstration, and transition of AM technologies, the three-phase

#### MAMLS program has set out to:

Develop and demonstrate advanced manufacturing technologies related to AM that improve rapid part replacement and maintenance for legacy aircraft.

Enable on-demand replacement of critically damaged or obsolete components that would not meet economic requirements of conventional supply chains.

Develop and demonstrate rapid fabrication of such shop tools as assembly aids, jigs, and fixtures for sustainment center utilization.

Identify technology gaps and workforce issues that need to be addressed and solved prior to effective implementation.

# MAMLS Phase 1 is complete while Phases 2 and 3 are still ongoing.

This is the second time that NCDMM has been honored with a Defense ManTech Achievement Award at DMC. In 2008, NCDMM collaborated with the Institute for Manufacturing and Sustainment Technologies (iMAST) on a Navy National Shipbuilding Research project titled: Naval Submarine & Carrier Propulsion Shaft Machining Cycle Reduction. The project focused on improving the overall cycle time for refurbishing the tapers on submarine and carrier propulsion drive shafts, resulting in improved operational availability and substantial repair cost savings.



L-R: Julie Locker, Office of the Deputy Assistant Director for Research and Technology; Brian Rice, UDRI; Tim Osborn, UDRI; Dave Siddle, NCDMM; Rob Gold, DASD(SE); Marvin Gale, AFRL; Marilyn Gaska, Lockheed Martin; Dennis Butcher, AFRL; John Wilczynski, NCDMM



#### **About NCDMM**

NCDMM delivers innovative and collaborative manufacturing solutions that enhance our nation's workforce and economic competitiveness. NCDMM has extensive knowledge and depth in manufacturing areas—both commercial and defense—to continually innovate, improve, and advance manufacturing technologies and methodologies. Our experienced team specializes in identifying the needs, the players, the technologies, and processes to attain optimal solutions for our customers. We connect the dots. That's the NCDMM methodology. NCDMM also manages the national accelerator for additive manufacturing (AM) and 3D printing (3DP), America Makes—the National Additive Manufacturing Innovation Institute. For additional information, visit the NCDMM at ncdmm. org and follow @NCDMMnews on Twitter.

#### **About America Makes**

Driven by the National Center for Defense Manufacturing and Machining (NCDMM), America Makes is the National Additive Manufacturing Innovation Institute. As the national accelerator for additive manufacturing (AM) based in Youngstown, Ohio, America Makes is the nation's leading and collaborative partner in AM and 3DP technology research, discovery, creation, and innovation. Comprised of member organizations from industry, academia, government, non-government agencies, and workforce and economic development resources, the America Makes membership community is working together to innovate and accelerate AM to increase our nation's global manufacturing competitiveness. America Makes is the first of eight Manufacturing Innovation Institutes established and managed by the U.S. Department of Defense as public-private partnerships. America Makes is also a member of the Manufacturing USA® network, which seeks to secure U.S. global leadership in advanced manufacturing. For more information about America Makes, visit americamakes.us and follow @AmericaMakes on Twitter.

#### **About DMC 2019**

The Defense Manufacturing Conference (DMC) is the premier defense manufacturing and industrial base conference in the country. DMC offers unparalleled general sessions and a unique and diverse forum for featured presenters from senior leaders in manufacturing and high-level stakeholders, including the Executive and Legislative Branches of government. This year, DMC 2019 has approximately 160 unique exhibitors and is anticipating more than 1,750 attendees from the Department of Defense (DoD), services, large and small businesses, contractors, civilian agencies, and academia. For more information, visit dmcmeeting.com.

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#### NATIONAL TOOLING AND MACHINING ASSOCIATION

1375 Rockside Rd. Cleveland, OH 44134

### **Manufacturing America's Future**

# The Board of Trustees, Executive Committee, and staff of the National Tooling and Machining Association would like to wish you and yours a wonderful holiday season.

We thank you for your membership as well as your contributions of time and talent in 2019.

Our gift to you in the new year: a renewed commitment to serving our members and building strong business and a strong industry - together.

